

The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1263.—VOL. XXIX.

London, Saturday, November 5, 1859.

STAMPED.....SIXPENCE.
UNSTAMPED..FIVEPENCE.

M. R. JAMES CROFTS, SHAREBROKER,
No. 1, FINCH LANE, CORNHILL (established 15 years), having resolved to
close his business, begs to intimate that he BUYS and SELLS every description of
BRITISH AND FOREIGN STOCKS and SHARES, particularly BRITISH MINING
SHARES, in which dividends are paid realising 15 to 20 per cent. per annum.
Mr. Crofts' List of Sixty British Mines Paying Dividends in 1859 (edition No. 7),
also Mr. Crofts' Selected List of Fifty-six Proximate Dividend and Progressive Mines
(edition No. 2), the basis of both Lists being the statistics given of each mine in the
Mining Journal, are now ready. The price to subscribers is £1 annually, and to non-
subscribers 6d. for both copies. The Lists contain, besides the statistical matter, the
names and addresses of the purasers, or management, of each mine.
Mr. Crofts refers the readers of the Journal to his weekly review of the market, on
page 768. The present moment presents peculiar opportunities for investments on a
large scale.

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large scale.

Office hours, Ten to Five.

M. R. JAMES LANE, No. 29, THREADNEEDLE STREET,
MINING SHARE DEALER.

Mr. LANE is a dealer in Margery, East Cardon, Ludlow, Pelyn Wood, Great Wheal
Fortune, St. Crispins, St. Cardon and Slade, Unity, Pendine Cons., Wh. Polmear, &c.

JAMES B. BRENCLEY, DEALER in BRITISH MINING

SHARES for immediate delivery at nett prices, for cash, 78, OLD BROAD

STREET, LONDON, E.C. FOR SALE:—

1 West Seton, £392½.
1 Clifford, £305.
15 Par Consols, £105.
50 Drake Walls, 3ds. 3d.
60 Vale of Towy, 1s. 9d.

Bankers: London and Westminster Bank.

Mr. LELEAN, 4, CUSHION COURT, OLD BROAD STREET,

has the following SHARES FOR SALE, at nett cash prices:—

10 Alfred Consols, £175.
2 Totland, £175.
2 Roseau, £250.
1 Brynall Hall, £175.
50 Butler & Bertha, £175.
29 Central Miners, £175.
5 Garnyorth, £175.
160 Camborne Yean, £175.
20 Catherine & Jane, £175.
20 Cun. Black Lead, £175.
1 Carn Brea, £231½.
1 Devon Consols, £240.
5 Ding Dong, £175.
100 Dale, 1s. 6d.
5 Durio, £175.
10 East Trefusis, £175.
65 East Providence, £175.
10 East Russell, £11.
5 East Darvel, £175.
5 East Bassett, £165.
55 Great Retallick.
10 Great Alfred.
50 Grambler & St. Aubyn, £175.
20 G. St. Tolgas, £175.
20 Great Hews, £175.
20 Harward United.
5 Herkness.

WANTED—30 Wheal Margery, £14.

N.B.—Mr. LELEAN has instructions to effect a great many exchanges. Please com-
municate immediately.

Mr. LELEAN's Daily Price List of Mining Shares, and Closing Price of Consols.

Annual subscription, £2 2s.; half-yearly, £1 1s.; quarterly, 10s. 6d.; post free.

4, Cushion-court, Old Broad-street, Nov. 4, 1859.

WEEKLY MINING CIRCULAR AND SHARE LIST,
published by PETER WATSON every Friday, in time for post, which gives
the most reliable information of any circular or journal published on mining matters.

Annual subscription, £1 1s., or 6d. per copy. Fifteen years' experience in connection
with mining.

**PETER WATSON, ENGLISH AND FOREIGN STOCK,
SHARE, AND MINING OFFICES,**
79, OLD BROAD STREET, LONDON, E.C.

Telegraphic orders to buy or sell mine shares punctually attended to.

PROVIDENCE MINES.—A SPECIAL REPORT will
be published in PETER WATSON'S WEEKLY MINING CIRCULAR AND
SHARE LIST (No. 85, Vol. II.) on Friday next, Nov. 11. Price, 6d. each.

M. R. J. SECCOMBE LANE, MINE SHARE DEALER,
ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S ALLEY, CORNHILL,
LONDON, connected with the London mining market for many years, has SPECIAL
BUSINESS in East Cardon, West Cardon, Marks Valley, Sonrige, Wheat Buller,
Wheat Adams, Worthing, &c. A bid wanted for 100 Devon Kapunda.

**ROBERT OLDREY, STOCK, SHARE, AND MINING
BROKER, 8, FINCH LANE (adjoining the City Bank), LONDON, E.C.**

Terms of commission for buying or selling shares in mines, railways, or banks, for
warranted on application. Bankers: London Joint-Stock Bank.

**CLEMENTS AND HEMMINGS, STOCK, SHARE, AND
MINING BROKERS, AND AUCTIONEERS,**

No. 3, OLD BROAD-STREET, LONDON, E.C., and No. 43a, WESTERN ROAD,
HOVE, BRIGHTON. Established 11 years.

Messrs. CLEMENTS and HEMMINGS are BUYERS of shares in the undermentioned
mines:—Troyton Consols, Wheal Margery, St. Ives Consols, Sonridge Consols, Wheal Buller,
Tolwadon, &c. They are also BUYERS and SELLERS of SHARES
in most of the DIVIDEND and PROGRESSIVE MINES.

A Daily List of Prices forwarded on application.

**M. R. JAMES REED, MINERAL SURVEYOR,
SHAREBROKER, AND COMMISSION AGENT, 44, CASTLE STREET,
LIVERPOOL, BUYS AND SELLS MINE AND RAILWAY SHARES AND STOCKS**

of every description, at the closest market price. Commission, 1½ per cent. on all
sums exceeding £100; under that sum, 4d. in £1.

J. Reed begs to inform his friends and the mining public that he has removed from
Whitehaven, owing to his inconvenience to an Exchange. Having removed to the above
address, he is in a position to transact business with dispatch, being in the immediate
neighbourhood of the Exchange. Having had years of practical experience in mining,
and being still in correspondence with some of the most experienced men of the day, he
is enabled to give those who confide in him reliable information. British mines, wst
selected, are the most profitable investments of the day, paying from 6 to 33 per cent.
per annum. Progressive mines, well selected, generally advance in price four or five
times their original value. A List of Dividend and Progressive Mines to be had post
free after the 1st November. Communications punctually attended to. Mines inspected
and reported on by himself, or a competent agent, on moderate terms.

**MINING OFFICES.—JOHN GLEDHILL AND CO., MINE
AGENTS AND SHAREBROKERS, COTSWOLD EXCHANGE, LEEDS, have**

SEVERAL VALUABLE COAL, LEAD, AND COPPER MINING SETTS TO DISPOSE
OF, which they can fully recommend, and are prepared to communicate information and
all particulars to bona fide parties. They are also BUYERS and SELLERS OF SHARES
in most of the DIVIDEND and PROGRESSIVE MINES.

MINING SHARES FOR SALE, FOR IMMEDIATE CASH:—

10 Pendine, £2½.
20 East Cardon, £25%.
20 North Rhine, £2½.
10 Holm bush, £175.
50 St. Day, 2s.
40 Lady Bertha, 1s.
5 West Trelawyan, £75.
25 Great Crispins, £175.
20 Tolwadon, £2.
10 East Cardon, £75.
1 East Bassett, £187½.
1 East Basset, £187½.
10 North Miners, £7.

Apply to Wm. Mitchell, 3, Austin Friars, London.

**MR. GEORGE BUDGE, 4, ROYAL EXCHANGE BUILDINGS,
LONDON, has FOR SALE:—2 United Mines, £125; 25 Kelly Bay, £28 10s.
5 Herodotus, £19; 20 Wheal Unity, 2s.; 2 Rosewarne, £45; 20 East Cardon, £25;
100 Great Fortune, £25; 25 Hindon Down, £21½; 50 Tamar Cons., £25; 2 West Cardon and Herland; 10 Great Wheal Fortune, £25;
500 Lady Eliza, 4s. 9d.; 5 Old Toly, £15½; 2 Grumbler, £25; 50 Wheal Harriet,
22s.; 2 Butler and Bertha; 5 Providence; 2 Wheal Marmaduke; 10 Stray Park; 30 East
Russell; 1 South Cardon; 15 Tolwadon, £42%; 40 Great Alfred, 15s.; 1 Wh. Buller,
£210; 50 Sonridge Consols; 2 E. Bassett; 100 Buckworth Bridge, 6s.; 50 Lady Bertha.**

Nov. 4, 1859.

CHARCOAL PIG IRON, MADE FROM MAGNETIC ORE,

SUPPLIED from London or Liverpool in LARGE or SMALL QUANTITIES
For price, &c., address THE EAST INDIAN IRON COMPANY, 8, Austin Friars, London.

THE MIDLAND IRON COMPANY, ROTHERHAM,

MANUFACTUREES of BEST "YORKSHIRE," and of STEEL IRON TYRE
BARS, for LOCOMOTIVE ENGINE, CARRIAGE, and WAGON WHEELS. Also
of REFINED SCRAP, STEEL IRON and "YORKSHIRE" BARS, HOOPS, RAILS,
ANGLE IRON, MALLEABLE SHAFTS, AXLES and FORGINGS.

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G E O R G E M O O R E,
1, CROWN COURT, THREADNEEDLE STREET.

George Moore will SELL the following SHARES, or any part, to-day, at quoted
prices, FREE OF ANY COMMISSION:—

1 East Bassett, £140%.
1 Grumbler, £24½.
5 Herodotus, £19½.
20 Hindon Down, £24%.
15 Kelly Bray, £3 1s. 3d.
10 North Bassett, £7½.
5 Par Consols, £11.
2 Providence, £24½.

DIVIDEND.
1 Rosewarne, £44½.
50 Sonridge Cons., £16. 9d.
10 South Cardon, £247½.
10 Tolwadon, £25½.
20 Trewetha, 27s. 9d.
2 United Mines (price on
application).

NON-DIVIDEND.
10 Camborne Yean, 2ds.
10 East Cardon, £27½.
10 East Carn Brea, £20.
3 Trelyon, £21½.
5 Dine Dong, £16.
20 Great Cardon, 9s.

20 Great Consols, £18.
20 Great Wheal, 1s.
20 Great Alfred, 3ds.
25 Holm bush, 28s. 9d.
50 Lady Bertha, 1s. 3d.

WANTED TO PURCHASE:—Butler, Cliford, 100 Carvannall, and United Mines.

PURCHASERS of undoubted respectability can register transfers and receive CERTI-
FICATES of same previous to PAYMENT.

George Moore will BUY or SELL any shares for the following rates when in-
structed to do so:—

For shares under £1 each, £0 0 6 per share.
Above £1 and under £2, £0 1 0
Above £2 and under £5, £0 1 6
Above £5, £0 1 6 per cent.

Special arrangements made with capitalists transacting a large amount of business.

In any business that George Moore is favoured with, in which he is the buyer, he
will give CASH ON RECEIPT OF TRANSFER.

JAMES HERRON has FOR SALE the following SHARES, at
the prices quoted, and FREE OF COMMISSION:—

20 Australian Agricultural, 5 Great Alfred, 3ds. 6d.
5 Alfred Consols, £4½.
20 Butler and Bertha, £175.
20 Butler & Bertha, £175.
5 Bryntall, £24½.
5 Bedfords, £27½.
20 Camborne Yean, £4s. 6d.
10 Kelly Bray, £3 1s. 3d.
5 North Crosby, £10½.
20 Holm bush.
10 Lady Bertha, 1s. 3d.
10 Pendine, £24½.
10 Rosewarne, £44½.
20 Wheal Margery, £25½.
20 Wheal Russell, £25½.
20 Wheal Harriet.
10 West Bassett.
2 West Cardon.
10 Trencoom, £21½.
10 Trelawyan, £28.
100 West Miners, £7½.
10 North Bassett, £27½.
10 East Cardon, £27½.
10 Trelyon, £21½.
100 Trelawyan, £28.
100 West Stray Park, £25½.
25 Wh. Gren., £25 1s. 3d.
25 Wheal Bassett & Grylls
(late Porkeless).
20 Wheal Harriet, 2ls. 6d.
10 Wheal Margery, £23½.
10 Wheal Unity, 2s. 6d.

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10 Kelly Bray, £3 1s. 3d.
5 North Crosby, £10½.
20 Holm bush.
10 Lady Bertha, 1s.

**GREAT NORTHERN COPPER MINING COMPANY
OF SOUTH AUSTRALIA (LIMITED).**
NO APPLICATIONS FOR SHARES in this company will be RECEIVED after
MONDAY next.—November 4, 1859.
T. HANCOCK, Manager.

**GREAT NORTHERN COPPER MINING COMPANY
OF SOUTH AUSTRALIA (LIMITED).**
Capital £100,000, in 80,000 shares of £2 each; 10s. thereof to be paid on application
for shares, and a further sum of 10s. per share at the expiration of one month
from the date of allotment.

DIRECTORS.
CHARLES BONNEY, Esq., late Commissioner of Crown Lands for South Australia.
FRANCIS COPE, Esq. Director of the North Rhine Copper Mining
CHARLES CLIVE, Esq. Company of South Australia.
GEORGE HAY DONALDSON, Esq.
JOSEPH TURNLEY, Esq., Deputy Lieutenant for Middlesex.
ALFRED WILSON, Esq., Director of the Bank of London.

COMMITTEE OF MANAGEMENT NOMINATED TO ACT IN SOUTH AUSTRALIA.
JAMES CHAMBERS, Esq.
The Hon. JOHN MORPHEW, M.L.C.
JOHN BENTHAM NEALE, M.P.

LOCAL SUPERINTENDENT.—William Finke, Esq. (pro tem.)
SOLICITORS.
LONDON—Messrs. W. & H. P. Sharp, 150, Leadenhall-street, City.
ADELAIDE—Charles Fenn, Esq.

BANKERS.
LONDON—The Bank of London, Threadneedle-street, City.
ADELAIDE—South Australian Banking Company.

BROKERS.
LONDON—Messrs. Cope and Scott, 7, Lombardy, City.
Thomas Fenn, Esq., Royal Exchange-buildings, City.

MANAGER.—T. Hancock, Esq.

REGISTERED OFFICES.—1, CHARLOTTE-ROW, MANSION-HOUSE, LONDON.

PROSPECTUS.

This company is formed for the purpose of purchasing the leases, and working the valuable and extensive mineral properties of the Great Northern Copper Mines, known as Chambers' Mines, situated about 140 miles north of Port Augusta, in the colony of South Australia.

The mines are 11 in number, as shown by the accompanying map, and are comprised in leases from the Colonial Government of 11 sections, 80 acres each—in all 880 acres. The leases are for 14 years, at a rental of 10s. per acre per annum; Nos. 1 and 2 for 14 years from July 23, 1857; and also Nos. 3, 4, 5, 6, 7, 9, 11, 12, and 13 for 14 years from June 17, 1858, with right of renewal for other 14 years, upon payment of the rent to be fixed by the Crown.

Mr. Wm. Finke, the discoverer of the Great Northern Mines, has recently examined the various lodes, and, assisted by six men, sunk shafts of from 4 to 12 fms. deep upon several of them, in order to test their extent and richness. In these operations 130 tons of ore have been raised, about 60 tons of which were sold at Swanage within the last six months, and the assays on an average show a yield of 27 per cent. of pure copper. The celebrated "malachite nugget," which when first raised to surface weighed upwards of 1 ton, was taken from one of these mines, No. 3.

The wonderful extent and richness of the Great Northern Mines soon became known through the public press. The South Australian Register of a recent date speaks of them as follows:—"We call once more the attention of our friends in England, and of capitalists generally, to the importance of this colony as a field for mining enterprise. It is proved by every test, short of actually bringing the ore to the surface, that the northern portions of the colony are rich to repetition in ores of copper. What is wanted is the formation of a few working companies, to lay bare the treasures of the earth, and to diffuse them and their results throughout the community. It is difficult to conceive a finer opening than exists in this department of industry for remunerative returns to judicious investments." The working of these mines is moreover, considered a matter of so much public importance in South Australia, that the Local Government is prepared to afford facilities for their development. The Governor, Sir Richard Graves Macdonnell, alluding to them in his speech to the Parliament at its last session said:—"The recent discovery of extensive and valuable mineral deposits to the north of Port Augusta will, I trust, at no distant date, add new sources of wealth to those already developed within this province;" and it will be seen by the subjoined official letter that orders have been given by the Colonial Government to the emigration agent in this country to arrange for the free passage of such of the company's mining servants as it may be considered advisable to send from England. Steps in favour of the formation of a railway in the direction of the mines have since been taken in the House of Assembly.

The consideration to be paid for the whole of the existing rights and interests in these extensive mineral properties, without any restrictive dues or royalties, will be on the following terms—namely, £25,000 in cash, on assignment of the property, and 5500 paid-up shares, and 16,500 shares on which only £1 per share is to be considered paid, none of these shares being transferable till six months after the date of issue, and an additional £750 paid-up share, which are not to be issued till ore has been raised and shipped by the company to the value of £17,500.

The nominal capital of the company is £160,000; but the called-up capital will be sufficient to pay the purchase-money, and leave ample funds for the prompt and efficient working of the mines.

All charges for promotion, advertisements, brokers' commission, share certificates and seals of the company, besides all preliminary, legal, and other expenses, up to, and including, the costs and fees of registration of the company, have been defined and agreed for at 2 per cent. upon the nominal capital of the company.

Applications for shares to be made to the bankers or brokers in the annexed form; but no application for less than 10 shares, or a multiple of 10, will be considered. A deposit of 10s. on each share applied for must be previously paid to the bankers of the company.

London, November, 1859.

The following is Mr. Finke's report:—

In reference to the partial and hurried manner in which these mines were opened and examined by me it must be borne in mind that the Government only allowed twelve months for that purpose.

MINE NO. 1.—In the commencement of July, 1858, I took four of my party to make a trial of this mine. They sank upon a branch part of the lode to the depth of about 4 fms., from which they obtained 5 or 6 tons of good grey and red oxide ore. The ore shows here on the surface for 20 ft. wide on the back part of the lode. I have no doubt it is a good mine.

MINE NO. 2.—We drove upon this lode, and sunk in three places 6, 8, and 13 fathoms, the average width of the lode 12 to 14 ft. In driving we were never without ore, of which we raised 100 tons; part, about 60 tons, has been shipped for Swanage, and the remainder is on the ground.

MINE NO. 3.—The surface is a mass of large boulders of primitive limestone. A channel of clear ground runs through this north and south, about 20 ft. wide, and in this is found the blocks of malachite, of which one then weighing fully 1 ton was sent to town as a specimen. Several other blocks from the same place are now among the specimens in London. In one part of this channel the rocks of one form like a regular lode; in another part they are found in blocks for a width of from 10 to 12 ft. This is a pipe-clay country, sufficiently indurated to stand without timber. The rocks of ore were obtained from three different places, 60 to 70 fms. apart, and there are many other spots where ore shows on the surface. The elevation above the level of the plain is about 40 ft. A shaft could be sunk at 30 ft. per min. I am satisfied in my own mind of the great value of this mine. Specimens from this mine assay 56 per cent.

MINES Nos. 4, 5, and 6.—On each of these ore is showing on the surface in several places, of a similar character to that from No. 3 mine. Specimens from No. 4 mine assay 56 per cent.

MINE NO. 7.—This is situated on the verge of the eastern plain, immediately adjoining the main range, with which it runs parallel. I have sunk here in two places 26 ft. and 42 ft.; the first sinking is on the lode, carrying ore all the distance and width of the shaft (4 ft.); in the second we struck the lode at about 20 ft. depth, finding about 18 in. solid ore. The ore raised, about 10 tons, is lying at surface, and all of us rich quality as the specimens. In driving south from the bottom of the shaft 50 or 60 fms., a back would be obtained of 30 to 40 fms.; the lode crosses a creek in which a stone of rich blue carbonate is jutting out, showing that it continues productive for at least 100 fms. The range with which this lode runs parallel rises about 150 ft. perpendicular, composed of quartzose sandstone, and is stained with copper from top to bottom and over its surface, appearing at some distance like a mountain of copper.

MINE NO. 11.—The ore occurs here in a flat, and is thickly strewed over the ground. I consider this a valuable mine, but no works have been made. A quantity of ore can be got at once. Specimens from this mine assay 55½ per cent.

MINE NO. 12.—This is the side of a spur of a range from the foot of which a cross-cut of 15 or 20 fms. can be brought in to strike the lode at 10 or 12 fms. deep. The ore appears in blocks of hard blue carbonates, and is traceable for 200 yards on the surface. Satisfied of the richness and extent of this mine I made no works, but merely brought away specimens, which assay 55½ per cent.

MINES Nos. 9 and 13.—At this point Nos. 7, 11, and 12 appear to converge, and the whole to form one main master lode. The ore is at first met with in the flat in rounded pieces; the lode then shows on the side of a hill about 90 ft. high, it runs along here for a considerable distance, nearly half a mile, showing the richest red oxide in many places. These I consider the most valuable of the mines; they are in character exactly similar to the Burra Burra Mine, and will, I believe, be as productive. Red oxide and black-banded predominate. They have been twice examined by Mr. Matthew Bryant, second captain of the Burra Burra, and will, I believe, be as productive. Red oxide and black-banded predominate. They have been twice examined by Mr. Matthew Bryant, second captain of the Burra Burra, and consequent upon his report a large sum was proposed to be given by that company, but their offer was not entertained. The Burra Burra Company then applied for two leases immediately adjoining, no doubt attaching value to them on account of their position with reference to these mines. Specimens from Nos. 9 and 13 assay 55½ per cent.

I have no hesitation in stating that a large quantity of ore may be raised in a short space of time, at a cost of from 37. to 47. per ton.

The country in which the mines are situated is generally well watered, with plenty of feed for cattle, timber sufficient for mining purposes and fuel, and in several localities sufficient for smelting purposes, should it be considered advisable to turn the lower quality of ore into regulus.

The road to Port Augusta is generally over plains, and the cartage can be accomplished at from £4 to £5 per ton, with the road in its present unimproved state. Distance of the mines from Port Augusta is about 140 miles.

WILLIAM FINKE.

The following is a copy of the official letter referred to:—

Government Emigration Office for South Australia, 8, Great Queen-street, Westminster, S.W., Sept. 8, 1859.—DEAR SIR:—I have to acknowledge the receipt of your favour dated the 6th inst., requesting that I would give you any details which I may possess with respect to reports, or letters, or official documents relating to certain mineral lands in South Australia, the leases of which have been taken up by Messrs. Chambers, Finke, and others.

I have now much pleasure in complying with your request, and informing you that my attention has been officially called to the circumstance by the Hon. Commissioner of Crown Lands in South Australia. He states that some of the sets have been examined and extensively tested, and a general conviction exists that nothing but the want of capital prevents an early and very large addition to the export of copper from the colony.

The scheme of forming a company in England for the purpose of working the mines has also been brought under his notice, and I have been authorised to give free passes to engineers from the mining districts of Devon and Cornwall, in a certain proportion to the amount of capital which may be bona fide intended for investment in working these mineral lands.

I observe, and have been informed, that steps are being taken to form a company with these objects in view, and I shall, therefore, be glad to hear from you whenever the scheme may be sufficiently matured to require any assistance from me in sending out suitable engineers.

I am, dear Sir, yours truly,

GEORGE F. DASHWOOD.

FORM OF APPLICATION FOR SHARES.
To the Directors of the Great Northern Copper Mining Company of South Australia (Limited).

GENTLEMEN.—Having paid £... to your bankers, the Bank of London, I request that you will allot me ... shares in the Great Northern Copper Mining Company of South Australia (Limited), and I hereby agree to accept such shares, or any less number that may be allotted to me, subject to the provisions of the Joint-Stock Companies Act.

Name
Address
Date

The above form, when filled up, is to be left with the bankers on payment of the deposit.

Original Correspondence.

"HONOUR TO WHOM HONOUR IS DUE"—

STEPHENSON—BRUNEL.

SIR.—It is pleasing to know our country has paid the demands of Robert Stephenson's merit—"Honour to whom honour is due." Our country will also some day pay poor Mr. Brunel. His mighty engineering achievements seem rather too extravagant and ponderous for a British public to digest in a day; therefore unlike Stephenson's, which were so practical, and always being adapted to the day are better understood and appreciated by a practical nation like ours.

Circumstances have invariably something to do with all great men; and one circumstance in particular gave Mr. Stephenson a decided advantage,—that was the locality of his birth, and the choice of that portion of England over which he was destined to urge his Locomotive. England necessarily was divided into two parts for these great men,—the midland and northern part for Stephenson; and the western and southern part for Brunel. Birth and local circumstances gave Stephenson his portion—that being one vast mineral field,—densely populated, and the only highway to the metropolis from Scotland; Brunel's portion being mainly a mere agricultural district. The immense traffic over the mineral districts is, of course, beyond all possible doubt more likely to render railways productive than those who have only the farmer and his produce to move, especially when the cost of the one is equal to the cost of the other. Such was Brunel's fate, or Hobson's choice—"That or none."

The skill and engineering ability placed on either side, or above and below their railways, are works for time, wear and tear, together with the great dissolving influences of our peculiar British atmosphere, to determine. However we may hope or feel, we must appeal to atmospheric influence, wear and tear, and time. And until that verdict be rendered, who dare condemn? In the midst of the contest, Brunel starts off with his Locomotive and Train of ten thousand passengers upon an ocean track, bearing food for his passengers, and fuel for his floating, fiery, flying horse,—for a run to Rugby without a stop? No; but for eighty days, without either taking up or putting down—yes, without a single stop until the distance run be equal to the earth's circumference. In this instance Brunel has the choice of locality—the Atlantic, the Pacific, and every other sea.

Brunel is not interested in Westminster Abbey. No: it is most difficult to bury him; for he will live for ever—in a thousand yet unbuilt Leviathans.—Nov. 1.

S. W.

Redruth, Nov. 1.

I would beg to remark that this suspension of the steam-case was not first proposed by me, having been done in two or three places some time before I did it; the fact is, I was compelled to do it at North Croft, which was the first, because the mine was so poor they could not afford to have a metallic piston, which would cost 100/-; and the high temperature of the steam in the steam-case causes the packing to be destroyed in the short time I have named. I should not be allowed to put any of these steam-cases I have suspended in use again, and I think the time is not far distant when Mr. Loam and Mr. Anonymous will say with me, that where there is a hemp packing used, and the engine working with anything near a full load, the steam-case must be abandoned; and I have no proof whatever that it is at all useful with any load, or any sort of piston, provided good non-conductors are properly applied.

JAMES SIMS.

THE "BIG BEN" OF WESTMINSTER.

SIR.—We must all regret the failure of the second great bell, and it is to be hoped that some remedy will be taken to obviate another such occurrence. Having for many years been connected with foundries, experience has taught me that the two bells cast have been made unequally in thickness—that expansion and contraction have not been allowed to go on regular; and without there are alterations made in the thickness of the bell that is to be cast, there is no doubt the same result will follow.

Bedford Iron-Works, Tagstock, Nov. 4.

THOMAS NICHOLLS.

SCIENCE AND WAR.

SIR.—Your correspondent, "Engineer," asks the question—Whether Chemistry, Metallurgy, or Electricity, cannot be brought to aid in War? and very properly remarks, that improvements in the art of war have not kept pace with the general march of science, or with any other branch of commercial industry. "Engineer" says that machinery is now doing the work that the population of the whole world could not perform by the sweat of the brow, and very naturally thinks that Science ought to lighten the labours of those who defend our territory.

In the course of many years devoted to metallurgical operations and the electric decomposition of various earths, gases, and metals, I have been engaged in experimenting on the strength and power of the electric fluid; and can assure your correspondent that so terrible are the explosive powers of metals, when under certain electric conditions, that electricity may now be used as the greatest agent yet known for destructive and offensive warfare. My engine will command a range of several miles, and on the return to the earth of the missile thrown, the point of contact will be subject to vibration, and for many yards around all life would be completely annihilated. A few of my engines would in a short time destroy the largest army ever yet assembled.

JOHN CALVERT.

COPPER SMELTING.

SIR.—It is a considerable time since I addressed you upon the subject of copper smelting, but I send a few remarks in consequence of several letters that have recently appeared in your valuable Journal upon the question of the Standard. That this subject is difficult to be understood by any person unacquainted with the mysteries of copper smelting is not at all surprising, as it is, in fact, I will not exactly say a myth, but a sort of imaginary nonentity, only emanating from the body of copper smelters to mystify the purchasers of copper ores, and throw dust in the eyes of the copper miners and the sellers of copper ores, who are unfortunately obliged to submit to the present unjust method of realising a value for them, and they being altogether at the mercy of the buyers to purchase at any price they may please to put upon them. It is a well-known fact that upon every ton of fine copper now being made there is a clear profit of nearly 40/- per ton realised by the smelter, so that it is not at all surprising that such princely incomes are made by them—but, unfortunately, entirely at the expense of the unfortunate miner. In your Journal of last week, the difference is given as between the prices of copper ores purchased and the price of fine copper sold, as showing a profit of somewhere about 20/- per ton upon each ton of fine copper made; but this is only half the real profits realised, as taking the difference in quantity of fine copper produced in the furnace and that given by the assay, together with the purchases of ores being always at the rate of 21 cwt. to the ton, as also the usual allowance for draft, it is invariably found that, taking an average for a series of years, the surplus will amount to, at least, 20 per cent., and that, taking the price of copper at 100/- per ton, will give an additional clear profit of 20/- upon every ton of fine copper made by the smelter. There are very few persons who are not actually copper smelters who are aware of the additional source of profits. So long as the copper miner will submit to this the smelter cannot be blamed for continuing the same; but if the miner were paid a fair price for his ores there still be an abundant profit for the copper smelter, and many progressive mines now continually obliged to make calls, would be at least meeting their expenses; and numerous others merely doing so would be paying good dividends. But the miners have now an opportunity of doing so, and if they neglect it they may never have another. I am informed that a few highly respectable parties have just completed arrangements for taking the ores from any mines who choose to avail themselves of this opportunity, at prices considerably above those to be obtained at the ticketing, and consequently saving as well all the charges attending such sales; or to such miners as prefer it, the ores would be taken to be smelted on commission, at so much per ton for smelting charges, and the fine copper returned. It is an obvious fact that if this plan be carried out the smelters' monopoly will soon be at an end, and the miner will receive such a fair price for his ores as he justly merits, after the great outlay and risk which are always attendant upon mining under the most favourable circumstances.

Swansea, Nov. 2.

ANTI-MONOPOLIST.

BORNEO, AND THE STRAITS.

SIR.—Since I last wrote from this quarter of the globe, which was on July 28 last, I have been able to get a little more information about the mines and minerals which are or have been attempted to be wrought. The Sarawak antimony ore is wrought by a Limited Liability company. The ore has been principally found in boulders and large detached masses. There are some slight appearances of horizontal deposits, but which have not been defined, as little attention was paid to it until after the Chinese rebellion in Sarawak, previous to which the antimony ore was wrought by the Chinese gold diggers, and brought down and sold to the company. Such is the insecurity of the country at present. The working of the ore becomes a difficult matter, and the mines may at any hour be shut up.

The Sarawak coal mines are at work on a coal seam found cropping out on the side of a mountain 4 ft. 6 in., but this includes a thin layer of a brown smutty clay band 8 in., this being at the rise crop. The adits are open to the dip, and nearly where the coal seam strikes into the swampy ground at the base of the hill. The coal seam where the mines are opened is considerably thinner, and as the adit proceeds into the mountain, and the overlying strata from 50 to 60 fms., the coal is divided and split up in a curious, troubled manner, and which indicates faulty ground. The company, I understand, sent a practical man from the Staffordshire coal field to bore to the dip of the present mines, in order to prove whether the coal would improve when clear of the mountain, and under the flat part of the country (a very proper plan); but alas! the boring, from some reason or other, was stopped; on account of the surface sand, I think. In the immediate locality we have several other thinner coal seams overlying the

coal in work. I may here remark that the quality of the coal is good as a steam coal, as reported by Her Majesty's and the Dutch men-of-war. In the river adjoining, I understand, there has been, some time ago, a seam of coal, 4 ft. 8 in. in thickness, in quality second probably to none, and also crops out in a mountain of great extent, and is found on the opposite side of Borneo, in the Dutch possessions; but such is the state of the country that nothing can be done. What a pity the British Government does not form a settlement in this country, which possesses so many treasures; it is a magnificent island, which all can testify who have been in the interior.

The second company is also under the Limited Liability Act, and has been, through their agents, cutting some most extraordinary capers. The Island of Labuan is about ten miles in length by six in breadth, and is a British colony. The company in question has been trying for the last ten years to open up a coal mine. The coal seam is 10 ft. in thickness, and is found cropping out first on the sea beach, on the eastern side of the island, and may be traced to the western side more or less. I may say that the coal exists on the western side. The coal dips 16 in. per yard, and has a fair run of indurated clay shale and sandstone, alternating with thinner beds of coal. The company has had three superintendents, two of whom died in the island; and they have had a staff of European engineers, miners, &c., in number unprecedented in the annals of coal mines. Well, Sir, over a period of ten years they have shipped about 100,000 tons of coal. At present the mines are not wrought. This same company has opened three coal seams at the mouth of the Buiui River, on the main land of Borneo, and has wrought the surface coal. These seams in question are extraordinary deposits, cropping out at an angle of 50°. The seams are three in number—1st, 18 ft.; 2d, 20 ft.; and 3d, 18 ft., with about 60 ft. of shale between each coal seam. The most extraordinary part is that the cleavage of the coal runs contrary to the angle or dip; this coal is about one mile from the shipping port. There are several other seams known to exist, from 4 to 6 ft. in thickness. At the Labuan mines there are two 30-horse power horizontal engines, one of which is on the engine-shaft, working two pumps; the shaft is 40 ft. deep, and the whole apparatus is such as has been seldom witnessed. One pump has a 9-in. working barrel, and 12-in. pipes in the upper part. The second pump has a 9-in. barrel and 9-in. pipes.

With such coal seams and facility for shipping, you would hardly credit that a sum of 150,000£ has been expended, and all they have is the plant and the shaft 40 fms., 400 yards of railway, and a few houses and offices.

A party of Dutch and English have begun tin mining in the group of islands called Canonicus, in the Straits of Malacca, and we have great promises.

CARBON.

THE MINING EXCHANGE.

Sir.—All who wish well to the Mining Interest will echo the sentiment contained in your article upon the so-called new *Mining Exchange*—that it is good for that interest the "Corner" is to be abandoned, and to become the property of the historian. Without wishing to trench, however, upon the province of the historian, permit me to say, that too much has been made of the "Corner," as connected with the mining interest. It is well known that many large dealers and mining capitalists avoided it as they would a pestilence, and many others who were compelled by circumstances to resort to it occasionally did so with reluctance and regret. That the *habitués* and others should now hire a room wherein to meet and transact their business is matter for great satisfaction, but how far this movement may serve to form the nucleus of a *Mining Exchange* is matter for grave doubt. You say, in your article, that the secret of the failure of the *Mining Exchange* of 1855 was its *exclusive character*; that is to say, it sought by establishing rules similar to those of the Stock Exchange (excepting that for members finding security), to make the mining market respected; but when rules had, morally, no power to bind, and the committee no power to enforce them, the basis of an Exchange failed, and it became a mere place of meeting—and jangling. The quoted, or what was called the *official*, list of prices, which for some time emanated from the room, became at last so deceptive and disgraceful that it was given up with one consent; and this list will be the rock upon which similar institutions will split.

Those unacquainted with the working of the system—the desire of members to give quotations suited to their own transactions, the abuse heaped upon those whose prices, though perhaps fairer, might not harmonise with those desired by others—can form no conception of the "Babel" the institution became, and which led to my retirement long before the room was closed; and if this happened in an *exclusive* institution, what may be expected from one formed, as you lead us to infer, with rules so framed that members may comply with them "without feeling that they are acting in direct opposition to their inclination?"

I have always been desirous, and in my humble way have taken some trouble, and suffered much personal annoyance and persecution for the object of seeing the *Mining Market* more respected, and of seeing it have, in itself, a little more self-respect; but I question the success, or even the propriety, of an indiscriminate union of members of any class whatever, assuming to be the guide and head of any particular interest.

Let the oldest mining men, and largest mining capitalists in London meet, and frame rules and regulations fair and reasonable for one and all, and let those who wish to become members of an Exchange, having fulfilled their engagements in the market, bind themselves to observe the rules on pain of dismissal, and give a committee power to enforce them in case of need. Until this be done no place of meeting will be worthy the name of an Exchange for such an interest as that of mining, nor will any list of prices emanating from it be of any value to the public.

J. Y. WATSON.

STOCK EXCHANGE BROKERS' CHARGES.

Sir.—Many correspondents have written on the desirability of placing Mines on the Stock Exchange List; one contemplated advantage being the transaction of business in the shares of mines so placed through the members of that institution, thereby securing themselves from the alleged over charges and doubtful doings of "outsiders." The following statement will at least dissipate that idea, and show that whatever abuses may exist among "outsiders," they also exist among the "select":—

In one of the morning papers, a complaint was made relative to the charges of Stock Exchange brokers for doing business. The writer quotes a case in which, for selling 150 shares at 51. 5s. per share, the broker's charge was at the rate of 2s. 6d. per share to the seller, and 2s. 6d. to the buyer. This would give to the broker, for a very trifling exertion on his part, the sum of 37. 10s., by way of brokerage. The journal in question asserts that in this transaction the seller and buyer were imposed upon, as the proper charge ought to have been only half the amount. Now, this is incorrect: the authorised Stock Exchange charge for such a transaction is 2s. 6d. per share, and though many respectable brokers would be content with a less exorbitant rate, yet there are brokers who would insist upon the full charge, and would be justified in so doing, as it would be according to the scale fixed by the committee of the Stock Exchange. This scale is very unjust towards the public, and very detrimental to the interests of the fair dealing broker. It is far too high in some instances, and it ought to be modified. Some years ago a meeting of brokers was convened to talk over the matter, and to purge the scale of charges of its anomalies and exorbitant features. The brokers were perfectly willing to make a fair reduction, but the committee of the Stock Exchange either refused or neglected to assist the brokers' views, and the matter dropped. It may be said that the brokers have the remedy in their own hands, for they can make the rate of brokerage a matter of bargain with their customers. This plan, however, is found to act disadvantageously, and to give rise to occasional murmurs. The proper course would be for the committee to do what they were requested, to modify the scale of charges, and to refuse to recognise bargains that were not in conformity with the official scale. But there is even a more important matter than high brokers' charges which the committee ought to turn their attention to. Owing to the paucity of business, and the great increase of members of the Stock Exchange, with the consequent competition, resort has been had to practices which tell with great but unexpected weight against the public; practices which have proved the principal means of driving moneyed speculators from Capel-court, but which, however, it is but fair to say, would be reproached by the committee if publicly proved. The new practice of "touting"—small jobbers soliciting brokers to give them a "turn"—is, perhaps, only a matter of taste, but this new practice gives rise to another, which cannot be too soon disengaged. Certain dealers and brokers have a friendly understanding together. The jobber executes the commissions which the broker receives from his clients at his own price, and at stated times shares his "profits" with the broker. Between broker and dealer the public are heavily victimised, and that, too, without the possibility of bringing home the fact to the perpetrators.

The safest course for capitalists is to enlist the advice and assistance of really well-informed and established firms. They will then be in safe hands, whether for guidance or transaction of business—whether in "the House" or "outside" is of little consequence.

R.

THE MINERS' ASSOCIATION.

Sir.—Your remarks upon the desirability of establishing a Miners' Association of Cornwall and Devon could not be read by mine adventurers without leading to the opinion that it is as much to their interest to aid in the development of a scheme as to that of the miners themselves; for it must be seen that the adventurers will, by securing the services of a more intelligent class of men than those now employed, have a far better guarantee. Upon these grounds I think few adventurers, whether in Cornwall or elsewhere, would object to a small contribution if applied to it. It may be objected that the cost of collection would exceed the amount received, but this is a difficulty easily surmounted, and perhaps the following plan might not be the worst that could be suggested:—Let, say 2000, circulars be printed, and one sent to the purser, and another to

the secretary, requesting them to insert an appeal to the adventurers for subscriptions with the next printed statement of accounts furnished herewith (the slip of appeal might be appended to the circular addressed to the secretary and purser, so as to give them no unnecessary trouble, and should be expressed in the least possible words so as not to cause the printing of it in the adventurers' circular to increase the expense). The appeal fund without falling heavily upon any one, whilst from the advantages which the adventurers would derive the outlay would be repaid in a very short time. Or what would be better still, would be for each mine to pass a resolution in general meeting making a call of 1d. per share to be paid into the Miners' Association fund. The justice of this is evident, as by the labour of the association each adventurer would derive benefit in proportion to his holding. The tax might fall more heavily on myself than on many others, but the slight addition would be quite insignificant even in my case, and I should readily comply with the demand when the purpose for which it is made is so thoroughly praiseworthy, and of such great practical utility. A STRAY PARK ADVENTURER.

A TOUR THROUGH THE MINING DISTRICTS OF CORNWALL.—No. III.

Sir.—Clifford and United are two divided mines in the Gwennap district. The former is the most productive in Cornwall; dividends from 7d. to 9d. per share will be paid bi-monthly, but to pay this amount and working expenses, from 1500 to 1600 tons of copper ore must be sold bi-monthly. Even this large quantity is not half that sold by the Devon Consols Company in the same period. The cost is exceedingly heavy, but notwithstanding these large sales, the enormous deposits of ore will enable dividends equal to the present to be paid for years.

United Mines are not so productive; dividends of from 2d. to 3d. per share will be paid bi-monthly; the mine, however, is improving, and larger dividends may be looked for.

To the Camborne district I now direct the reader's attention. Copper and tin are found here in large quantities. Dolcoath, Cook's Kitchen, Stray Park, and Camborne Woods have all been productive copper mines, and divided a large amount of wealth amongst the fortunate shareholders, besides supporting, to a large extent, the inhabitants of the districts in which they are situated. These mines, after having exhausted their deposits of copper, make tin mines equally as profitable, but at a much greater depth. Dolcoath, which has been at work incessantly for a century, after having ceased dividends from 1790, to 1810, only, has now again commenced to pay dividends, having the best tin mine in England. During the poverty of the mine the shares, then 179 only, were selling at 14d. each, and scarcely salable at that price. Now shares are doubled (358), and worth 350d., or 700d. the original share. Some idea may be formed of the extent of the underground operations in this celebrated mine, when it is known that the explorations on the different levels amount to the aggregate to 60 miles; and at a depth of above 1500 feet the remaining three mines are being worked to attain the same result. Cook's Kitchen will be in the Dividend List in less than six months: the shafts are sunk to the same depth at which so much tin was discovered in the adjoining mine (Dolcoath), and is under the same manager. At the last meeting it was resolved to expand 1500ft., to 1600ft., in extra stamp-stamps, which will be put out of the shafts. After these are erected there will be no difficulty in sending large quantities of tin to market, and good dividends may be expected. Tin in these mines holds down to a great depth, and as depth is attained so will reserves greatly increase. Stray Park has not long been re-worked; the shaft is down to 180 fms., and the lode here 10 ft. wide. Although not yet very productive, still the indications are identical with those I have just named, and no doubt exists in the minds of practical men that this mine will well reward the present outlay. The mine is divided into 920 shares only, and a discovery would send shares to a great price. Calls will have to be made for a short time, and those who have capital to invest would do well to lay it out here. West Seton and Wheal Seton are both copper mines, in the same district: the former, in 400 shares, is selling at 380d. per share, or 150,000£. for the mine, on an outlay of about 16,000£. A dividend of 10d. was paid at the last meeting (the highest yet paid), and if that amount can be continued, is 60d. per share a year; but there is a great doubt whether this amount can be continued, even with the present high price of metals. The inter is paying dividends from 2d. to 3d. bi-monthly, and was formerly in 99 shares only. After a great many years' working, during which time a large amount of capital and labour was expended, a very productive lode was met with, and dividends of 2d. bi-monthly was paid, or 120d. per year. Shares, from a nominal price, rose to 1100d. each. Yet even at this extraordinary price, those who were fortunate enough to hold shares were very reluctant to sell; those who did, however, proved the wiser, as the lode failed, and the value of the mine declined as fast as it had previously risen, and has never since recovered much of its former glory. It will, doubtless, make a good tin mine in depth, but I doubt if much more profit will be made from copper; and to accomplish the former, time and capital will be required. New Wheal Seton is a new mine, and the workings very shallow: it is a part of West Seton, and those acquainted with the mine have no doubt of West Seton lodes running into the set; but a great depth will have to be attained before they are discovered. North Croft, in 1128 shares, is worth attention. At the last meeting there was a debit balance of 128d. only: the mine is now paying cost, and dividends need not far off. It is tin and copper, but the latter predominates, and it will be from that metal that profits will be made. The tinstall now being raised contains 12 cwt. of tin per 100 sacks, or more than 100 per cent. richer than that of Dolcoath.

Condurrow, South Condurrow, Wheal Harriet, and Wheal Grenville are copper mines. The former has divided about 21,000f., but now in abeyance; the others are progressive, containing the elements of that which makes good mines. Grenville is at a depth of 90 fms., and is watched with great interest. Harriet is 100 fms. deep, and formerly operations were confined chiefly to the western part of the set: this was found poor, and latterly the eastern part has been worked, which proved even more successful than the most sanguine anticipated. The property is now selling for 6000d. only, but the time is not far distant when profits will be made, and the mine better appreciated than at present. South Condurrow, although not 20 fathoms deep, is selling under its value. The mine is worked economically, but with vigour, and when the 20 fm. level is reached, which will be in a month, good results are looked for, and I believe will be fully realised.

North Dolcoath has caused a great deal of attraction, on account of the large quantity of silver discovered. There is no question about its ultimate success; but whether the silver will fall at the present shallow levels, and give place to copper, is a question which time alone will solve. North Roskar has in former years divided 750d. per share; now, however, it is not paying cost, and the heavy and repeated calls must be very disadvantageous to the shareholders; but as the mine becomes further developed profits may again be made. West Stray Park is a good progressive mine, and will, doubtless, prove profitable. Mining in this district is, a certainty where vigour is used, and calls responded to. Investors in taking shares in progressive and call-paying mines should always bear in mind that unless calls are met works cannot be carried out; hence the cause of so many mines being abandoned. The blame is then thrown upon the officials; but those gentlemen cannot carry out works without capital.

W. F.

London, Nov. 1.

PRACTICAL MINING IN THE CARADON DISTRICT.—No. I.

GRANITE & KILLAS.

Sir.—Most likely the discovery in East Caradon Mine, and the improvements that are taking place in Marke Valley, and other mines in this locality, will have a tendency to call the attention of capitalists and speculators to this district. Now, the object of this paper is to try to direct those who may be inclined to invest in the young mines now at work, or any new ones that may be brought before the "public," to the most promising position to expect good mines to be found in; I would, therefore, say by all means go into those mines in the granite, and not in the killas. And if there are any "sets" about to be set to work, be sure and ascertain if they are within a reasonable distance of the productive mines of the district, and situate in granite, because the mines situate in killas have all so far proved a failure; therefore I say again—go into the "granite." And in order to prove that the granite is the most congenial soil for copper in this locality, I will just compare South Caradon Mine, which is entirely in granite, against the undermentioned mines in killas.

It is well known here that South Caradon has paid a profit of more than 150,000£., and likely to pay as much more; in fact, nobody knows what it will do. Now, then, for the contrast—

First in order is Wheal Gill, a mine in killas, a failure, after a large sum having been spent on it.—Trethevy Mine, in killas, worthless, after a heavy loss.—3. South Caradon Wheal Hooper, chiefly in killas; so far good for nothing.—4. Caradon Vale, also in killas, not worth a rap.

In my next I shall contrast West Caradon against some more mines in killas.

A MINE AGENT.

ADVERTISEMENT.

THE NIDDERDALE LEAD MINING COMPANY (LIMITED).

Sir.—In reply to the letter in last week's Journal, bearing the signature of Richard Fawcett, but evidently the diction of another, will you allow me to make the following remarks:—In the first place, I would assure him that in affixing my description of the solicitor and secretary of the company to the letter which has evoked his reply, I did not for one moment intend or wish that it should be considered as official, or authorised by the directors; nor will any one with ordinary conception apply such a construction to it, as I therein distinctly state "I feel my duty towards the shareholders requires that I should notice J. C. C.'s garbled and untrue statements," &c. I would further inform Mr. Fawcett, if he has not already had sufficient proof, that I shall never ask or wait for the authority of the directors to take action, and show up the anomalies of any persons originating any statement intentionally made to damage the interests of the shareholders at large. I did not consider that it was at all necessary, though I do not for a moment hesitate to adopt the additional title he suggests, with a very slight but important alteration—"a promoter of the company, solicitor to the promoters, and an intended holder of 1000 paid-up shares," free shares (in the sense Mr. Fawcett would wish that term to be) to him, as the company will get more than their value for them. But no doubt Mr. Fawcett thinks he is divulging a secret that I wished not to be known, forgetting that the prospectus of the company (of which there have been 500 circulated, and a copy sent to you, Mr. Editor, to be reviewed in April last) contains the following clause upon the face of it:—"The parties holding the agreements for leases of the minerals are willing to accept 20/0 free shares for their rights and interests thereunder, as also for the heavy expenses they have incurred and been put to pending the long-protracted negotiations with the owners, nearly two years. These shares are, however, only to rank with, and to be entitled to the same dividends as, the ordinary shares, whether the latter be partially or fully paid up." As Mr. Fawcett, is not averse to an appendage to his name, and as one good turn deserves another, I would suggest to him the following addition to his title:—"A stipulator for, and an executor of, 50 of the free shares, and a percentage for obtaining shareholders."

In answer to Mr. Fawcett's testimony to the fact that "the promoters ruled the whole of the proceedings at the meeting on Sept. 23 last," I have only to state that they did not and could not do so, as there is but one promoter who is a director, and I am sure the majority of the directors are too independent to be controlled by him do not my vindication by me, as they are well able to answer for themselves. I will, therefore, only add that I do not remember the proposal alluded to by Mr. Fawcett as having been made by the promoter, who has not paid the first deposit upon his shares, to make another call upon the shareholders; but as there is but one director in default, and as that gentleman seconded Mr. Fawcett's appointment as Chairman of the board, I do think that gratitude alone should have made him to the "default of that friend a little blind." As Mr. Fawcett says he directly contradicts my statement, that all resolutions that came before the meeting were passed unanimously, except the appointment of Chairman. I have only to copy that the minutes of the meeting in question, taken down at the time, and signed by the Chairman before the board separated, will prove whether Mr. Fawcett or myself is the most worthy of credence in that respect. I wish Mr. Fawcett would explain what he alludes to by the term "trap" and "patent wrongs." Surely he does not suppose that his having held the office of Chairman for two or three times gave him a "patent right" to the appointment. If he does, I would remind him that *sovereignty* is not sufficient, but that *utility* is a very necessary ingredient in a patent. As to a "trap," I may inform your readers that an attempt was made about a fortnight ago by

Mr. Fawcett and his friends to "catch me," by suggesting the desirability of my making an appointment with them to meet, and come to some amicable understanding about the management of the company in the absence, and without the authority or knowledge, of the board of directors, and which I, of course, indignantly declined. How true is the adage that "those who live in glass houses should not throw stones."

In conclusion, I never contradicted the statement of "J. C. C." that the meeting he referred to was by no means harmonious; and I will now go further, by stating that no one would be better able than Mr. Fawcett to assure you that "the proceedings were of a riotous character," as he and one of his friends were the sole originators and instigators of the uproar, immediately after the result of the voting on the resolution appointing the Chairman of the directors was declared.

THOMAS SYKES, Sec.

Pateley Bridge, Nov. 2.

HERODSFOOT MINE.

RESPECTED FRIEND.—Thy correspondent, who signeth himself "An Independent Shareholder" in Herodsfoot, a Liskeard, is unfortunate in reminding thee, that "comparisons are odious." He giveth thee specimens of locally-managed mines—South Caradon, Cradock Moor, Mary Ann, Ludcott, &c., in comparison with Wheal Pollard and Wheal Hooper, as mines managed in the great Babylon. Thy correspondent is either a very bold man, or a very ignorant one. I could, perhaps, a tale unfold; but I will not startle thee nor thy readers. With thy permission, I would only ask thee at present, if Wheal Pollard is not entirely under the same management as Cradock Moor and Wheal Ludcott, and equally "supplied" by the "Co.'s"? Is it not equally the fact, good friend, that Wheal Hooper belongeth principally to Liskeard men; and those shares which found their way to Babylon, were they not introduced and sold there by merchants who have since erected the steam-engine, and supplied it with knotless fuel? And, oh! that independent grub of Liskeard, is not the head and the front of the opposition to the honest manager of the Foot of Herodsfoot the same individual promoter of that same Wheal Hooper?

Liskeard, Oct. 31.

AMMIDAR.

HERODSFOOT MINE.

SIR.—There is one paragraph in the letter of "An Independent Shareholder" to which

sanguine expectations will gratify the shareholders equal to regular sales and profits; but will the writer be less pleased, for no cause not where a good mine is discovered, or by whom found, as it benefits all interested in the welfare and progress of legitimate mining, and needs not a combination to fix a price upon shares before the value has been ascertained by a development below a 10 fm. level. The mine, I am informed, holds out very considerable promise; and a correspondent writing from the locality this week observes—"Really, Pelyn Mine seems to be a good thing; they have an extraordinary lot of ore surface." THE WRITER OF "WHAT IS SAID AND DONE AT THE CORNER."

TIN MINES AND MINING—GARLIDNA MINE.

Sir.—The writer of the letters in the *Mining Journal* in reference to "Tin Mines and Mining" appears to have a very imperfect knowledge of some of the mines on which his letters treat, judging from the reply of "An Old Tin Miner from West Cornwall," Capt. White, and others; and, as I have had my attention directed to some remarks of his, which appear in the Journal of Sept. 17, respecting Garlidna Mine, in Wendron, and with the position of which during the last working I have an intimate acquaintance, permit me to inform him that his statement that the south lodes have not been cut in any cross-cut from the engine-shaft is quite incorrect. Not only have both the town lodes, which are considered to be the chief ones in this direction, been intersected in the 20 cross-cut, and one of them at the 30, but they have also been opened on east and west many fathoms at these levels, and found poor.

Although the engine-shaft is sunk to the 50 fm. level, no cross-cut south deeper than the 30 has been driven. A north cross-cut at the 20 has passed through several lodes, all of which at this point are unproductive.

Nor will any party who may feel disposed to re-work Garlidna find "a rich course of tin in the bottom of the 30, a little to the west of the Garlidna engine-shaft." In the base of that level a considerable quantity of tin was extracted, and the lode lost poor; in the bottom the lode is of much less value than found in the stopes in the back; and the lode in the 50 end west, which is only a short distance in advance of those slopes, is split into branches, and poor for mineral.

Your correspondent is also just as much in error as regards the cost of dressing tin in this district—57. 10s. per ton on the average cost! 15s. per ton scarcely covers it where stamp-stamps are employed; and at least 10s. per ton where water-stamps are available.

I have no desire to dissuade adventurers from resuming the working of Garlidna. With the present high price of tin, and by fairly developing the chief lodes, the mine will probably become remunerative. But with cross-cuts to be driven, levels to be extended, an engine-shaft to be sunk in hard ground, and in a very watery country, requiring a powerful pumping engine, with proportionate pitwork, and a steam-stamp, the expenditure of 50,000*l.*, which is named as the capital, adding also thereto the proceeds of the sale of tin that may be raised in the interim, is not, to my view, likely to prove a sufficient sum to bring this mine into a paying state.

Wendron, Nov. 1.

BRITISH AND FOREIGN MINING EXCHANGE OF LONDON.

Sir.—You have no doubt heard, and subscribed to, the British and Foreign Bible Society; but did you ever, for I never did till I saw Mr. William Leean's advertisement in your last Journal, hear of the British and Foreign Mining Exchange of London, and yet I have been a mining adventurer to no small extent ever since 1848, and I was under the impression, too, that I knew every facial organ of the Mining Market of London. Who the dunces are Mr. Wm. Leean, and what is he that should, without any plaudited authority by advertisement, call upon the public to pay to him, or into his private banking account, subscriptions towards this Exchange? If this Exchange is to be, as I presume it is, composed of the elements of the former Mining Exchange of London, just twenty-four blackbirds mixing in a pie, and if, as your Dublin correspondent suggests, those "same elements are to be carefully excluded from the new Exchange," then there will not be, and cannot be, such an association *de facto*. I know enough of the members of the old Exchange to be justified in saying that the capitalist who adventures into mining with honest purpose, and in a spirit of legitimate enterprise, has a great deal to be apprehensive of from the proposed Exchange. If the same principles are to be adopted in respect to a daily share list as the committee of the defunct Mining Exchange acted upon, then the public will be far more incorrectly informed as to the value of, and dealings in, mining stock than they are at present by the different agents who advertise in your Journal. I fully believe that this new Exchange will do nothing, and can do nothing, to prevent such gross dishonesty in share dealing as is mentioned by your last week's correspondent, "J. R." I could speak of such and much worse transactions by members of the old Exchange to the amount of very many thousands. But then the City authorities have at last determined that those men who have been so long permitted to stop the way at Heron's Passage, somewhat after the fashion that poor honest huckster women were treated by that incorrigible specimen of a legislator and administrator of justice, Sir R. Gurney, "Move on, gentlemen," is to be henceforth the order of the day from the police force whose make up what is called the Mining Market; and so I suppose in more pity Mr. W. Leean says to them, "Won't you walk into my parlour, you pretty little flies?"

As you are by some believed to be strongly bent upon purging the Mining Market of its deterring influences in regard to mining enterprise, I have to request that, in furtherance of your wholesome purpose, you will publish this letter.

JAMES STRIDE.

COLOGNE MINING COMPANY.

The sixth annual general meeting of shareholders was held at the London Tavern, Bishopsgate, on Monday.—MR. PARKE PITTAIRN in the chair.

The notice convening the meeting having been read, and the minutes of the last approved, the accounts were submitted, which showed liabilities amounting to the sum of £2,671. 9s. 5d., including 10,556*l.* 17s. due to bond and debenture holders.

THE CHAIRMAN said they had met for the purpose of considering the general position of the company, and the expediency or otherwise of dissolving. The first business was to receive the accounts. He should then call upon the gerant (Mr. Youngusband) to make his report. The accounts had been supervised by Mr. Armstrong, a professional accountant, and who was in no way connected with the company.

MR. YOUNGHUSBAND stated that in the concluding paragraph of the directors' report for last year hopes were expressed that under the arrangement which had been made with respect to three mines—the Cacilia, the Biltach, and the Fahrenberg—they could be worked to profit, and that the Vahlberg might, with adequate capital, and under special conditions, be worked to a considerable profit. From a knowledge of those arrangements he was induced to accept the responsible position of gerant, but owing to circumstances over which the directors had no control they have partially failed. The means proposed were the formation of a smelting company, and the renewal of the debentures falling due on Oct. 1, 1859, for a period of six years. The warlike aspect of affairs on the Continent paralysing the money market, the necessary capital could not be raised. The Stettin bondholders made application for the interest due upon their debentures, and threatened a foreclosure of the mortgage for the amount claimed, holding the directors personally responsible for their debentures. Those claims were resisted, and proceedings commenced, the superior tribunal deciding in favour of the company, and the holders agreed to take 75 per cent. and the interest. That looked for attack deferred the establishment of the smelting company, and finally, as the delay in the decision of the case was so long, its abandonment. The Fahrenberg was producing on an average 15 tons of dressed ore per month, and at the suggestion of Messrs. Phillips and Dartington a water-wheel had been erected at the dressing-floor. The Cacilia and the Biltach Mines, owing to the very low price of zinc, had not paid their expenses. The company had been very unfortunate in their English *employés*, but the necessity of English superintendence was undeniable, but that superintendence must, of course, be honest and energetic.

THE CHAIRMAN said he had supplied funds to carry on the works at the mine out of his own pocket to the amount of £20*l.* The war had been exceedingly calamitous to their interests, and the Fahrenberg had been their only mainstay, which at the present moment was producing a clear profit of 100*l.* per month. That property, however, could be seized at any moment, and the company be thus left without a resource. He would, therefore, propose that the company be dissolved, and the gerant to be appointed liquidator, and take all necessary steps in Cologne to certify its dissolution, and announce to the mortgagees that they must resort to the mines Vahlberg and Biltach to pay the mortgage debts. That the gerant be empowered to dispose of the mines, and to report to a future meeting the result, and to receive out of the proceeds for his past and future services the sum of 300*l.*

MR. SEARS thought it would be premature for a liability so small to dissolve the company, and thus lose a property of acknowledged value. Seeing there were 17 mines, would it not be far better to dispose of a portion of their property only to liquidate the existing liabilities, the more especially as one mine alone was making a clear profit of more than 100*l.* per month.

THE CHAIRMAN, who was a large shareholder, had expended such a large amount upon the undertaking, that he had himself altogether relinquished the idea that the payment of any call would lead to satisfactory results. There could be no doubt that their property was valuable, but when they considered the acknowledged speculative character of mining generally, added to the fact that their company was subject to Prussian law, the uncertainty of the agents they were obliged to employ, and other great difficulties which had been put in their way, he, for one, would be very sorry to advance any further money for the purpose of carrying on the undertaking. With regard to the proceeds of the sale, if shareholders determined on that course, the company's affairs had been so carefully managed that there were no outside debtors.

MR. SEARS believed there were parties in England who would purchase the property and pay the company a profit upon its liabilities. He would be glad to know in what way it was proposed to dispose of the property.

THE CHAIRMAN replied that the sale must be made in Prussia, consonant to the laws of that country, of which notice must be given in the public newspapers.

MR. LOADES (the company's solicitor) said the position in which the company at present stood was that it possessed certain mines. Two of those mines—one of which was being worked at a profit of more than 100*l.* per month—were in mortgage for 10,000*l.* According to Prussian law, these mortgages were registered in the Court of Cologne, and the property was held under registry. That 10,000*l.* was, therefore, a registered incumbrance. As it was clear that if the gerant attempted to sell those mines, which were worth a very much larger sum than 10,000*l.*, without previously discharging that mortgage debt, the company would be the loser, and, therefore, it would be more prudent to leave the mortgages to sell under the Court—in fact, leaving them to resort to their own property for their own security. According to the law of Prussia, the sale of a property, instigated by registered mortgages, can only take place after the greatest publicity has been given by advertisements and otherwise, and thus the property would possess all the advantages of a public sale—that was, supposing the course proposed at that meeting were adopted, and power given to the gerant to make that announcement to the mortgagees. As to the mode of the sale, that meeting could give what directions it thought fit. By the law of Prussia all the mines and minerals belonged to the Government, who recognise the special property of parties, receiving a percentage as royalty. For the purpose of getting that percentage, or royalty, the government did not permit the mines to remain unworked, therefore, if those who held the mines cease to work them they become forfeited.

MR. YOUNGHUSBAND, in answer to a question, replied that a certain amount of work must be done to preserve the right to the property. They must do so many "sheffels" per week. The James Watt Mine had not for the last twelve months yielded any profit, as it had been worked merely to keep their right existing.

THE CHAIRMAN said the property would realise a sufficient sum to pay off the debenture holders, and leave a sum to be divided among the original holders. He did not wish to put that forward as a *bona fide* fact, but he thought it was a fair assumption, seeing that one mine had produced more than 100*l.* per month net profit.

MR. SWANE thought the sooner the property was got rid of the better. The political events, over which they had no control, and the dishonesty of the company's servants, had been the cause of their great distresses, and their best plan would be to submit to their losses, and not go on increasing their difficulties. The very cause which had produced their failure was at the present time existing.

A long discussion ensued, when the resolutions, as proposed by the Chairman, being duly seconded, was put and carried unanimously.

A vote of thanks to the Chairman terminated the proceedings.

RAILWAY CALLS.—The amount falling due in Nov. is 417,984*l.*—making the total for the year 11,428,737*l.*

WHAT IS SAID AND DONE AT THE "CORNER."

The amount of business transacted during the week has not been large, probably arising from the fact that Monday being the settling or account day, little was done more than that connected with the settlement; and on Tuesday was the usual half-yearly holiday in the Stock Exchange, consequently no business was transacted in the House. The "Corner" has, notwithstanding, shown considerable animation, arising from a demand for shares in mines where improvements are reported to have taken place. The chief transactions have been in CLIFFORD, GREENWICH, CARR BREA, COTSWOLD, SCARFESIDE, WHEAL HAMMICK, EAST RUSSELL, and a few others.

GREAT WHALE. FORTUNE shares have been done at an advanced price, and buyers are still to be found.—UNITY shares have found an increased demand in consequence of the recent improvement.—MARKE VALLEY and SOUTH CARN BREA shares have been in request, and a great many of the former changed hands.—WHEAL BRY shares have been largely in demand, and a great number have been dealt in.—KELLY BRAY shares have also been sought for, and continue firm at present prices.—STHAT PARK shares are firm, and looked upon as a safe share for holding.—WEST CARNON and EAST HASSET shares have not been so much in demand, nor are they so firm as last noticed.—GREAT RETALLACK shares have been freely offered at lower rates, and although the mine is represented to have improved, buyers are very scarce. It is apprehended that the statements upon which the mine was brought out will not be fully confirmed at the coming meeting. The absence of the long-promised dividend has considerably lessened the confidence of the purchasers.

SORTING REPORT, received to-day (Friday), is by far more encouraging than any other for many months past. The lode in the 62 cast has been cut through, and is very large, the productive part southwards of 1 ton of rich ore per fm.

They have intersected the lode at the 40 cross-cut, which carries rich quality ore. These two points promise to become highly productive. Other levels are represented to be looking better.

TANAR CONSOLS continues to look well in the bottom levels, which are producing most excellent work: 60 tons of silver-lead ore were sold on Saturday last, realising 126*l.* 10*s.*

—At EAST CARNON, the caunter lode, intersected in the 50 cross-cut, continues of equal values as last represented, being worth 6 tons per fm.; and although the agent, in the exercise of his usual caution, estimates the lode worth fully 75*s.* per fathom, I saw, yesterday, one of the four agents who went underground and inspected the mine on Monday (Oct. 31), and he values the lode at full 100*s.* per fm., and that from assay of a sample he took, by him, observing, "that the large quantity of beautiful crystallised copper in the lode is apt to mislead as to the true value before assayed." By information received this morning (Friday), it is stated that Capt. Stephens inspected the mine on Wednesday, and he values the lode at 8 tons per fm.: by an assay made of a few stones, the produce is given at 34 percent. They are still extending the cross-cut, in expectation of cutting the south part of the lode, believing that they have not yet got the whole, from the character of the lode seen at the 35; and as soon as a little further advanced will commence to take down the caunter. Fawcett's lode is improving.—OKELTON continues to look very promising: the stopes in the back of the 50 have for the past two months yielded 7 tons per fm. of full average quality ore. The 65 end is coming under these stopes, and the 50 end is improving every fathom driven: 100 tons were sampled on Friday last.

—At CALSTOCK CONSOLS the bottom end is daily improving, and the winze under the 24 is expected to be drained, when they will resume sinking in a course of ore yielding 6 tons per fm.; there is also a good and productive lode in the bottom of the engine-shaft.—At EAST CALSTOCK CONSOLS, or WHEAL ZION, a new company is forming, for the purpose of resuming operations—the chief object being directed to points neglected or overlooked in the former working; they have opened on a very fine gossan lode, 6 feet big, in a beautiful stratum.—At HOSEWELL HILL and RANSOM, they have an improvement in the engine-shaft sinking below the 130; the lode being very rich for tin, the sumplings will be considerably increased after being more fully opened.

At GREAT NORTH TOTON, the lode in the back of the adit continues productive, and the bottom on being cleared is found equally good; they are now in course of dressing an excellent parcel of ore.—At MARGERY, in sinking American shaft under the 80, they have cut into a fine course of copper, stated to be 18 in. wide, solid. In the 80 end west, same shaft, the lode is worth 25*s.* per fathom. The western part of the mine is much improved for tin. Last week's sampling is expected to realise 180*l.* for the two months. —Mr. Crofts, in his remarks last week, expressed his having some mighty reasons for doubting the correctness of my observations on Pelyn Wood. Notwithstanding that want of confidence, I still maintain the truthfulness of the report at the time of writing, and if my friend will only exercise a portion of his criticism and long practical experience in reviewing dates, he may remember that for two weeks neither his criticisms or the "Corner" appeared in the columns of the Journal, giving place to more important matter. My statement that the 10 fathom level was suspended was written at that period, and the 26 men were put to work subsequently. But none of these nonsensical quibbles will affect a mine whose merits are to make it the champion of the Cornish mines. Mr. Crofts knows as well as I do the measure adopted to raise the premium upon Pelyn Wood shares. Referring to the paragraph in the *Notabilities* of last week under the head of Pelyn Wood, I consider that the writer should be made known as a guarantee for the truth of the statement.

JAMES LANE.

At the corner of the mine, therefore, are quite apparent. West Carnon shares remain rather flat, notwithstanding the mine, I am assured, at no period during the present management presented such favourable prospects as now. A large business has been done in Pelyn Wood Mine. Having had numerous enquiries about the real state of this property, I have sent an agent to inspect and report on it; until his report is received it would be premature to offer an opinion on the property. North Downs is opening up a great mine. It may be truly said that, with one or two exceptions, no mine has laid open more ore during the past few months; and great credit is due to the management in allowing the reserves to accumulate previous to paying dividends. The next mile for two months is expected to realise about 110*l.*, leaving a profit of some 200*l.*; this has been done without having recourse to stopping any of the backs. The agent states in his report that upwards of 12,000*l.* worth of ore has been discovered in the 40 fathom level alone; and the present end in this level is producing 9 tons of good ore per fathom. It is unquestionably one of the best mines in the county. Sortrid: e Cunlids shares have been largely dealt in, owing to the cutting of a south lode, supposed to be that in which the adjoining mine—North Wheal Robert—is obtaining its principal returns from. Kelly Bray shares have been very steady, scarcely fluctuating at all. The mine is making good returns; a dividend of 2*s.* will be declared at the coming meeting in a few days. In the event of either of the various ends that are now in operation coming into ore, there would be a considerable rise in the price of the shares. East Carnon Brea is supposed by local parties as likely to become one of the prizes of the district. New Wheal Seton would reward an outlay; patience for results is necessary, and moderate calls will probably be required. But when we recollect what West Seton was only a few years since, we are justified in bringing New Wheal Seton prominently before the notice of the mining community as a speculation of more than an ordinary character, as the same favourable indications are shown in the latter mine as presented themselves in the former at its earlier stage of working. New Wheal Seton shares are 13*s.* to 14*s.* per 400*l.*; and West Wheal Seton shares 35*s.* to 36*s.*

The present favourable position which mining pursuit has attained has probably induced the formation of a company on a gigantic scale to work some mineral property in Australia. Now, without wishing to detract from the merits of this property, I am at a loss to conceive the reason for such a large subscribed capital to develop a mining property, which is set forth as having ore in large quantities cropping up to the surface—unless, of course, it is to expand 60,000*l.* of it in the purchase of the mineral right alone. I am informed that there is quite a rush to obtain allotments of the shares—such is the mania that gets a hold on the investing public for foreign schemes from time to time. One would suppose that the Nova Scotia, Metcalfe, and several of the Australian companies, which have all resulted in such heavy losses, are scarcely forgotten by those who unfortunately embarked their capital in them; but probably a new race of speculators has sprung up that know not the disastrous results of these companies. Touch! I would give a word of caution—if an investment for capital is required, surely there is an ample field in our home mines: 15 per cent. can be obtained by an investment in them, which is more than can be realised by a purchase in the best mine that Australia ever did, or probably ever will, produce. I allude to Burra Burra. Let me say the same amount of capital that is now asked for by the Great Northern Company of Australia be applied for the purpose of buying up a few dividend British mines and I venture to affirm following for an excess of price which may be created by an excessive demand) that 10 per cent. per annum would be secured for years to come. This can be substantiated by facts, while the property in which the investment is made is almost within a day's journey of the most distant part of the kingdom. It belongs to all who have the well-being of the mining interest of this country at heart to watch with great jealousy (and to caution their friends before embarking in) new concerns that are brought out with such enormous premiums to the promoters, &c. Mining enterprise is of its very nature hazardous, without its being taxed by heavy premiums and preliminary expenses to clog the chance of a fair remunerative profit on an outlay in its development.

FOREIGN MINES.

ALTEN AND QUENANGEN MINES.—Estimated produce for Sept.:

Mines.	Ore.	Per cent.	Copper.
Quenangen	88	11 1/2	10,110
Kaiaps	12	5	0,600
Old Mine	100	4 1/2	4,500
United Mines	24	4	6,960
Michell's	7	5	0,350
Thomas's	7	9	0,630
Cari Johans	12	8	0,960
Quenangen	4	4	0,160
Total. Tons 254	18 2/9	

Mining Report from Sept. 23 to Oct. 7.

RAIFAS.—No change of importance has occurred in either the north-west working or sink below the 15 since our last, which are at present the only points of operation. In the latter place the lode is 2 ft. wide, and yields about 2 1

The lode in the junction winze, sinking below the 18, is worth 1 ton per fm. The lode in the slopes in back of the 18, east of Dea's winze, is worth 1 ton per fm. The lode in the slopes in the back of the same level, west of Dea's winze, is worth 2 tons per fm. —
Counter Lode: The lode in the 38, driving south-west of Taylor's engine-shaft, is 15 in. wide, producing good stones of copper-pyrite, and letting out a small stream of water. The lode in the 18, driving south-west from the mill lode, is 1 ft. wide, composed of flockan and spar. —Slide Lode: The lode in the 28, driving south-west of Basto's lode, is 1 foot wide, composed of flockan. —House Lode: The lode in the 20, driving west of Oak shaft, is in two small branches, but unproductive. —Oak Engine-shaft: At this shaft we are still going on with the cutting of the plat at the 30. The ground in Perry's shaft, driving below the surface, is getting harder as we get deeper. The ground in the 50 yard level, driving north of Taylor's engine-shaft, is much harder than it was when we last reported. The lode in the adit level, driving west of Perry's shaft, or Basto's lode, is 6 in. wide, composed of flockan and quartz. —Carvath Mine: The lode in the 20, driving west of the River Calma, is 1½ ft. wide, composed of quartz and mudioc, mixed with spots of lead.

NEW GRAND DUCHY OF BADEN.—S. Richards, Oct. 31: At Schindler engine-shaft the 45 is extended 4 fms. 8 in. north, and 4 fms. 1 ft. south. In the north end the lode is 4 ft. wide, worth 18z. per fathom; and in the south end it is 4 foot wide, worth 32z. per fathom. The 34 south is now extended 29 fms. 2 ft. 3 in. from the shaft; the lode, which for a few feet was divided into branches, is formed together again; it is 20 in. wide, containing some very work, but not enough to value. The same level north is extended 43 fms. 3 ft. 3 in.; the lode is 4½ ft. wide, altogether of a promising appearance, with fluor-spar, quartz, mundic, and ore, worth 34. per fathom. The end driving now rather hard we consider that further progress may be made by driving by the side of the lode, which will be commenced to-morrow. The slopes in the back of this level are worth on the average about 67. per fathom. North Schindler adit from the point we commenced to enlarge it is made good 75 fathoms, leaving now about 45 fms. to reach, so far as the level is cleared of stuff. South Schindler adit is cleared and reached 60 fms. 3 ft., leaving now, according to calculation, about 93 fathoms to reach the lode. Teufelsgrund slopes in Louisen's level are producing 6 cwt. of ore per fathom. In Frederick's level the slopes are producing 7 cwt. per fm. At the smelting works campaign 17 is commenced, and will be brought to a close about the end of November. .

MINING IN JAMAICA.

CLarendon Consolidated (Jamaica).—Josiah Martin, Oct. 6: Stamp-furnace Hill: We have deepened the engine-shaft this last month 2 fms. 4 ft., the lode, or part on which we are sinking, is about 4 ft. wide, composed of a little green carbonate, prian, with patches of killas. The lode at this point is not looking so kindly, having met with a small slide or cross-course in the shaft, which has rather disordered it for the present; but I think it will improve again as the slide leaves the shaft. We are now down 10 fms. below the 58. We shall have to drive north a little distance to cut the north part of the lode which we have left standing; you are aware I wrote you about it some time since. This lode was looking very kindly at the point we left it, which is about 3 fathoms below the 58. In the 58 cross-cut south, on the cross-course, we have met with two small branches, containing green carbonate and prian, with spots of yellow copper ore; this goes to prove that the lode is still to the south of us. I am pushing on this end with six natives. We have hoisted the winze from the 46 to the 58; this has given us a quantity of good air, both for the ends and shaft. We shall not want the resistance of the fan now, but shall apply the engine only for the pumping and drawing of the stuff. I have put four men to drive the 46 south on the cross-course; the ground in the end is porphyry—set at 34. 5s. per fm. I think these are the most necessary points we ought to push on at present. The machinery appears to work well, and all the works have been pushed on with vigour, both underground and at surface, and things are going on comfortably.

Hope Silver-Lead and Copper.—Captain Collom, Sept. 26: The ground in the deep level still requires blasting. There is softer ground on the roof of the 30 level, but it does not appear likely to add in the driving, as the level has to be timbered to support the roof; the softer ground in the back, or roof, does not seem to be serving us as we advance; the level is still well ventilated. In the driving of the 30 fm. level north-east we met with lead and zinc ores, and also occasionally good stones of spar, but there does not appear to be much change in the general appearance of the lode for the last 10 fm. in driving. —Oct. 10: The hard ground in the deep level now extends above the back or roof, so that the end does not now require timbering. I trust it will continue so, as it will enable us to blast more freely in the course of two or three weeks time, without the risk of damaging the level. We shall soon be able to make greater advancement in the driving, and I think we may calculate on completing about 6 or 7 fms. per month, as the ground will blast very freely when no obstacle or rock intervenes. Eighteen native labourers are engaged in driving the level—six at the end in each shift of eight hours, day and night,—and every effort is being made to drive as fast as possible with the work. I have nothing new to report of the 30 fathom level at present; lead, zinc, and copper ores, just as previously noticed, continue to occur in the driving; two men only are engaged on this operation. We have lately had very rainy rains, but I am happy to state that no material damage to the works has resulted from the violence of the floods which ensued.

WHEAL JAMAICA.—Capt. Francis, Oct. 11: Matters at Charing Cross remain just as last reported, everything being kept in perfect order. The last parcel from this mine gives a result of 14½ per cent.

ELLEGSLIE AND BARDOWIE.—Captain Holman, Oct. 10: The heavy rain has retarded the works at Salisbury Plain Mine, and the lode in the deep level has not been intersected when the latest account left the mine.

EXTENSION OF MINING IN NORTH WALES.—The mineral resources of this important district are about to be further developed by a company which has just been formed, who have purchased two lead mines, situated at Llangoerian, Carnarvonshire, and known as the Tanrall and Penrhyn Mawr Lead and Barytes Mines. The purchase of the leases, together with all the machinery now in and upon the mines, has been made for the sum of £3500., of which £1000. is to be paid in the shares of the company; it has been acquired for a long term, and can from time to time be extended on application, the company paying the moderate royalty of 1-16th to the lessors. Mr. J. Petherick, to his inspection the property on behalf of the company, has no hesitation, after mature reflection, in stating his opinion that the prospects of the Tanrall Mine are of a decidedly variable character, and such as to justify the expectation that, if explored in a regular systematic manner, it will within a reasonable period yield remunerative returns. With regard to the Penrhyn Mawr Lead Mines, Mr. Petherick states it is evident that, notwithstanding the irregular and unsystematic manner in which the lodes, which are singular and distinct, have been explored, returns of considerable value have been obtained. Taking into account the number and general favourable character of the lodes, as well as their productiveness, together with the great facilities afforded by the favourable situation of the mine for giving the several lodes an effectual trial in the most economical manner, and without the aid of extensive steam-power being required, the prospects are of a sufficiently promising character to warrant the outlay of capital necessary for that purpose. Mr. Petherick thinks it probable that a systematic extension of workings in depth will lead to the discovery of valuable deposits of ore. Mr. W. B. May recommends that the future working of the Tanrall Mine for lead and barytes should be carried on by sinking the shaft, as lodes of that class, and in such a geological formation, are found to become permanent lead lodes in depth. There is also an extensive vein of ironstone of the common crystalline kind, commercially known as "brown iron." The Penrhyn Mawr Mine, Mr. Bray thinks, cannot fail, if prudently worked, to give the most profitable results. For the last few weeks the operations at the mine have been temporarily suspended, the death of the lessee, Mrs. Ashton Smith, having taken place upon the day on which it had been arranged that the lease should be signed, delegation of the directors, accompanied by the secretary, are at present on the mine, in order to definitely arrange the matter, with a view to its vigorous development.

BRONYFLOYD.—M. Barber, J. Lester, Oct. 28: The 17 fm. level is passing through a piece of disordered ground, which dips greatly to the west, as much as 9 feet per fm. The slopes in the great rise above the adit are yielding their usual quantities of ore. The surface and dressing operations are as usual.

Nov. 2: Our position with respect to setting by slopes, numbered 1, 2, 3, &c., is much similar to October, and, consequently, the following bargains are set for this month: No. 1 stops to six men, at 4f. 10s. per fm.; No. 2 stops to twelve men, at 3f. ; No. 3 stops to four men, at 4f.; No. 4 stops to four men, at 3f. per fm. The lode at the various points of these slopes are looking well, and yielding on an average for the width of the lode full 2½ tons of lead ore per fm. We have not yet regained the lode in the 17, which is estimated upon the day on which it had been arranged that the lease should be signed, Nov. 4: Intelligence reached London this morning of the fact of the lode having been regained by the cross-cut north from the 17, and that the men had cut into it about 12 in., breaking good ore.

BRYNTAIL.—J. Roach, Nov. 3: There is no alteration of importance in the operations in this mine since reported on last week. We are getting on well with sinking the winze to the 25. In the 10 I have started a cross-cut to be driven from the north to the south part of the lode, where I hope to find a deposit of ore. The rubbish has been cleared off the barytes, which enables us to commence raising it at once.

BULLER AND BASSET.—G. Matthews, Nov. 1: Having cut through the lode at the 80, which still presents such a masterly appearance, we are now making the necessary arrangements for fixing the plough, which will occupy from four to five weeks from this time; after which we shall be in a good position to sink below that level without hindrance, and also to lay open the lode east and west. The lode going east in the 65 is large, and letting out a quantity of water, but poor.

CAMBORNE VEAN.—J. Vivian, Nov. 1: In the 222, driving east of sump-winze, on the south lode, the lode is large, and continues of the same size as for some time past.

The slopes in the back of this level have improved recently. The 170, driving east on middle lode, is not quite so good as last reported. The 106, driving west on the cauter lode, is worth 1 ton of copper ore per fathom. The ground at the new shaft is much the same for sinking as in the last month—a little more favourable than it was.

CARDIGAN CONSOLS.—J. Sanders, Oct. 29: During the past week we have had a

very severe snow storm, so much so that our water-courses were completely blocked up,

and we have been forced to stop all work for a week.

The air is very bad, and everything is going on regular again. The Bot shaft is sunk 3 fms. below the 10. The 10 east is much the same as last reported, yielding ½ ton per fm.

The 10 west is unproductive at present, but a change is shortly expected. The slopes in the back of the 10 are yielding ½ ton per fm. We have two men on tribute at the western part of the mine, at 8f. per ton.

—J. Sanders, Nov. 1: The lode in the 10 east is improved since my report of Saturday

to the 21st, and will yield at present 1 ton of ore per fathom. This is a very promising piece of ground; we have driven through about 10 fathoms of good stopping ground, but the air in this place is very close, and it would now be advisable to sink a winze through from the adit, which would prove the ground between the two levels and well ventilate the mine; the ground would then be taken away to much better advantage.

CARADON CONSOLS.—W. Rich, Nov. 1: There is no alteration worthy of notice in any part of the mine since last report. We have 5 fathoms more to sink to make the shaft 42 fathoms deep, and every effort is being made to reach this depth as quickly as possible, when we shall commence to open on the course of the lode without delay.

CARAVAN ALL.—W. Roberts, Nov. 2: The following tutwork bargains have been re-set to-day:—The 130 to drive east, by four men, at 3f. 10s. per fathom; the lode in the east is 1½ ft. wide, chiefly mundic. The 96 east, by four men, at 3f. 10s.; lode 1 ft. wide, composed of mundic and prian. The 86 east, by four men, at 3f. 5s.; lode 2 ft. wide. The 76 west, by two men, at 4f. per fathom; the lode is 2½ ft. wide, principally brown spar and crystallised iron. The 66 west, by four men, at 3f. 10s. per fathom; the lode is 1½ ft. wide, occasionally producing stones of ore. The 76 cross-cut to drive north, by four men, at 15f. per fathom. The 32 cross-cut north, by four men, at 4f. per fathom; this cross-cut should be driven 20 fathoms further to intersect the lode late cut in coexisting the new ground.

CARVATH UNITED.—R. Hancock, Nov. 3: We have driven the 60 end west of the engine-shaft about 22 fms. on the course of the lode, and for the last 4 fms. we have driven through a good thin lode, and the end is looking just the same for tin as it has been for the last 4 fms. The cairns are rising in the back of this level to communicate with the winze sinking below the 60. The lode is holding good in this rise and in the winze; we hope to hole this ground in about a fortnight from this time. When this is done it will lay open the ground for stops. The east shaft is down 5 fms. below the 10. The lode is large, and producing some good work, also looking kindly for a deeper level. The lode in the 10, to the east and west, is opening out a large piece of the ground, and from what we can see it has every appearance of making a payable mine.

HOLLOWAY'S OINTMENT AND PILLS.—Limbs SAVED.—Nothing can be more gratifying than the numerous testimonials voluntarily sent to Prof. Holloway, relating the extraordinary cures of wounds, sores, and ulcers effected by his ointment and pills. John Thomas, far advanced in years, residing at Penmaenbank, Conway, suffered severely from a bad leg, which for years resisted the treatment of the most skilful surgeons, who ultimately recommended amputation of the limb; he was, however, perfectly cured by Holloway's remedies, which effected a complete cure, affording case shortly after their first employment. In glandular and white swellings, scurvy, and all skin diseases, these noble remedies may be relied upon. They cure the particular local affection, by cleansing and regulating the whole system.

Mining Correspondence.

BRITISH MINES.

ABBEY CONSOLS.—J. Trewin, Oct. 29: The lode in the 30, west of the eastern shaft, is composed of quartz, bastic, and occasional stones of lead ore, and is presenting a very favourable appearance. We have cut through the lode in the cross-cut in the 29, and shall now begin to rise in the back of 2 fms. from the end. I cannot speak of any material change having taken place in the slopes in back of the 20, west of the shaft, are producing from 6 to 7 cwt. of lead per fathom. The lode in the 20, west of western shaft, consists of quartz, &c., with a little lead ore. The slopes in bottom of the 10 are producing from 7 to 8 cwt. of lead per fathom. The lode in the 10, east and west of the winze, are yielding 7 cwt. of lead per fathom. The ground in the cross-cut in the 20 is favourable for driving.—P.S. The snow-storm during the past week has

work for lead, and, to all appearance, will greatly improve on reaching the north wall of the lode. As soon as we have finished cutting the lode we shall push on the driving of the 70 yard levels, both east and west, with all speed, and shall open out good tributaries very quickly, as we have a good course of ore gone down in the bottom of the 50 yard level for the whole length they have driven. The slopes in back of the 50 yard level are just the same as when last reported on. The end driving east from Edgworth's shaft is producing good ore. We have commenced driving a cross-cut south from the 50 yard level, west of Edgworth's shaft, and have within the last few days opened on good ore, which is at present worth about 1 ton per fm. The cross-cut driving north from Laurie's shaft is looking just the same as when last reported on. Our dressing and surface operations are progressing very satisfactorily.

CLARA.—Capt. Trevethan, Nov. 2: The lode in the 20, west from the engine-shaft is 2 ft. wide, and still disordered by a cross measure of ground, at present poor. The lode in the same level east is 5 ft. wide, with a very kindly appearance, yielding 15 cwt. of ore per fm. The slopes in back of this level east are producing 12 cwt. of ore per fm.; No. 2 steps, 10 cwt. of ore per fm.; No. 3 steps, 7 cwt. of ore per fm. Other parts of the mine are looking much as usual. The dressing is going on regular.

COLACOMBE.—S. Mitchell, Nov. 1: During the last month the 96 has been driven west of Morris's engine-shaft 19 fms.; the lode is still of a highly promising character, and the ground east for progress. 13 fms. 4 ft. 8 in. have been stopped in the back of the 84 west, and the lode is worth 25f. per fm. The rise in back of the 50 has been put up 3 fms., this rise is discontinued until ventilated by driving the 40 cast, which will be resumed at once. About 30 fathoms have been stopped and timbered in the 50, and hope to complete this level to the present end (which is in 70 fathoms east of the old engine-shaft) by the latter part of this month. Other underground operations are progressing well. About 200 tons of good quality copper ore were sampled on Friday last. The following bargains were set on Saturday:—The 96 to drive west, at 3f. 15s. per fathom. To drive the 40 east, at 2f. per fathom. To stop and secure the 30 to the present end, per bargain 16f. All kibble fitting and landing at Morris's shaft, per bargain, 20f. a month. All the trammings as above, per bargain, 13f. 10s. a month.

CROWLWYM.—J. Bouch, Nov. 3: We have driven the cross-cut south in deep adit about 4 fms., which has passed through branches of solid ore and sulphur. There is now a change in the stratum, which indicates that there is still more lode before us; therefore, the cross-cut will be continued.

CWM ERFIN.—No. 1: The lode in the 69, going east of the drawing-shaft, is 2 ft. wide, composed of clay slate, quartz, and spots of lead ore. The 57, going east of the drawing-shaft, is still in broken up ground. The lode in the slopes over the back of the 57 fm. level, 50 fms. east of the drawing-shaft, is 2 yards wide, yielding 12 cwt. of lead ore per fathom. The 58, 10 fms. from Cox's engine-shaft. Coomb's lode in the 12 east is 3 ft. wide, chiefly composed of soft quartz, mundic, and blonde, promising, but not at present productive. Eaton's lode in the 12 west is 2 feet wide, producing good stones of yellow copper ore, a little lead and blonde, and presenting indications which induce me to believe that there is a deposit of ore a little under the present level.

BALLYMONEEN.—S. Evans, Oct. 29: During the past month the adit end east has been driven 5 fms. 0 ft. 3 in.; the lode in this place contains a small quantity of water, and is intersected by a great number of small cross-courses: it is mineralised with fine sulphur, and the ground favourable for opening; the end is re-set for the coming month, at 4f. 10s. per fm. About 50 tons of sulphur have been carried to Arklow this month.

BALLYVIRGIN.—D. Macdonald, Oct. 27: The underhand slope south is worth 1 ton of copper and 6 tons of mundic per fm. The underhand slope north is worth 5 tons of mundic per fm. The lode in the No. 2 step, in back of this level, is worth 1 ton of copper, 2½ tons of lead, and 4 tons of mundic per fm. There is no change to notice in the south end since my last report; the forepart is still showing large branches of calcareous spar, capel, and peach, and a little black sand.

BEDFORD CONSOLS.—Capt. Mitchell, Nov. 2: The lode in the middle adit level is still disordered by the influence of the slide, and letting out a great deal of water. The lode at the shaft is about 4 ft. wide, composed of spar, capel, mundic, peach, and a little black sand.

BEDHORN UNITED.—J. Phillips, Nov. 1: The lode in the 130 east is still worth 2 tons of ore per fathom. The two slopes in the bottom of the 115 east will yield respectively 4 tons of ore per fathom. We continue to drive by the side of the lode in the 115 west. Paul's steps, in the back of this level, are worth 3 tons of ore per fathom. The lode in the 103 west is 18 in. wide, of this level, is worth 4 tons of ore per fathom. The lode in the 90 west is worth 1 ton of lead, 1½ ton of copper, and 5 tons of mundic per fm. The slopes in the back of this level are worth 2½ tons of ore per fathom.

BENBETHWOOD.—J. Lean, Nov. 3: The samples are engaged cutting a trip-plat at the 57. The lode in the 30 south is composed of porphyry, quartz, prian, and mundic. The lode in the 20 south presents appearances which indicate an improvement shortly; we have also a branch of flockan, mixed with spar and mundic, about 6 ft. east of this end, converging towards the lode, and according to its present bearing it will unite with the lode a few fathoms ahead. The north ends are suspended for the present.

BEDFORD BRIDGE.—J. Hamby, Nov. 3: In driving the adit end west on the bedrock, we found a ledge come out from the north side about a foot wide, producing good stones of ore, consequently I have set the men to cut into the north wall, to see if there is any more branches in that direction. At the engine-shaft we have nearly completed the dividing and casing down from the surface to the 10, and by the end of the week I hope to have the 10 clear of water and stuff, when we shall commence driving west at once. I have to-day put a man to shovel and cut the north ledge coming across from South Bertha, on which they have a fine course of ore. This ledge was seen in the mill leat in Denham Bridge, and copper ore in it. I found to-day stones with ore in them at the surface just over the ledge. The lode in the leat shows rather a coarse appearance, but it may alter in sinking on it.

DEVON AND CORNWALL UNITED.—T. Neill, Nov. 1: We have commenced the rise in the back of the 44 with about 4 fms., which has passed through branches of solid ore and sulphur. There is now a change in the stratum, which indicates that there is still more lode before us; therefore, the cross-cut will be continued.

DENHAM BRIDGE.—J. Hamby, Nov. 3: In driving the adit end west on the bedrock, we found a ledge come out from the north side about a foot wide, producing good stones of ore, consequently I have set the men to cut into the north wall, to see if there is any more branches in that direction. At the engine-shaft we have nearly completed the dividing and casing down from the surface to the 10, and by the end of the week I hope to have the 10 clear of water and stuff, when we shall commence driving west at once.

per fm. The rise in back of the 88 east is communicated with the winze below the 66; the lode at the point of communication is worth 30f. per fm. In the 66 east the lode is at least 6 ft. wide, composed of capel, an abundance of mudi, peach, quartz, and good stones of ore occasionally; it is altogether very promising.

GARREG.—W. Sandoe, Nov. 2: In the 20, west of the engine-shaft, during the past few days the ground has made a favourable change, and the lode is looking more kindly than for some time; it is now yielding some good stones of lead ore, and is very likely to further improve. The stop in bottom of this level is looking pretty well, and yielding 9 cwt. of lead ore per fm. The stop in bottom of the adit, on the old lode, yields a little ore; the lode is large, and very kindly. I hope to prepare 4 tons of lead ore for the sale on the 10th inst.

GAWTON.—J. Gill, Oct. 29: There is no change to notice in any part of the mine since last report. We sampled yesterday (computed) 55 tons of copper ore.

GONAMENA.—R. Pascoe, W. George, Jun., Nov. 2: In the 80 east, on Sam's, the lode is 8 in. wide, producing occasional stones of ore. The slopes below this level will yield full 3½ tons of ore per fm. The stop in the back is not looking quite so well as last reported, now worth 1½ ton of ore per fm. The lode in the 70 is full 3 feet wide, composed of peach, mudi, and copper ore, and worth of the latter about 1½ ton of ore per fm.; here we are daily expecting an improvement, as we are getting under the ore driven through in the 68. In the 58 cross-cut north we have had some good leaders of ore in the cross-course during the past week, and have now cut a lode about 14 in. wide, composed of peach, spar, and good spots of copper ore, but finding the strings of ore continuing beyond this we have decided on driving a little further, thinking there is more lode further north. The stop in the back of this level is turning out fully as well as we expected, and is now worth 1½ ton of ore per fm. No alteration in this level was since last reported. The ground in the 90 cross-cut continues very favourable for driving, but no lode has yet been discovered.

GRAMBLER AND ST. AUBREY.—J. Daver, J. Michell, Nov. 1: William's Lode: William's shaft is sunk 2 fms. below the 46, lode worth 15f. per fm. The 46 is driven 9 fms. east of shaft, lode worth 16f. per fm. The 46 is driven 11 fms. west of shaft, lode worth 16f. per fm. A winze sunk 10 fms. below the 36, 2 fms. before the 46 end east lode, lode worth 16f. per fm., and has been worth the same for all the depth. A winze sunk 8 fms. below the 36, 9 fms. below the 46 end west, lode worth 12f. per fm., and has been equally productive from the commencement.—Middle Lode: We have about 5 fms. more to drive in the 36 north, on the eastern cross-course, to cut the lode, where we may expect to meet with ore. We have this day cut the lode east of the eastern cross-course, in the 24, lode worth 16f. per fm. We have driven the 12 fm. level 6 ft. east of the eastern cross-course, lode 18 in. wide, with a good branch of ore about 4 in. wide, worth 8f. per fm., looking promising. The adit is driving 15 fathoms east of the eastern cross-course, through a good gossan lode. The 36, driving east of the western cross-course, on the middle and north lodes, the lodes are large, but unproductive. The adit driving west on the horse engine lode is poor.

GREAT CARADON.—F. C. Harpur, Oct. 29: I have no change whatever to inform you on the appearance of the ground since last report. The sinking of the shaft continues to progress favourably.

GREAT CRINNIS.—J. Webb, Nov. 2: There is very little alteration in the appearance of the lode in the new engine-shaft, since my last report; it is now evident we are going down in a run of a champion lode, and likely to lead to important branches of ore. In the winze sinking on the lode, below the 80, we have a lode 5 ft. wide, saving work, but not so good as in the shaft. The 80 east is in good ground for driving, but not much ore at present, yet from indications I think we shall have ore in this direction.

The mine is in a good state of working. I had calculated we had done most of our erections, but have found it necessary to put up stamps to extract the ore out of the refuse from the dressing, there being a large accumulation; we have contrived a fall of water 13 ft., and will take a wheel that will do much work. This stamps will cost about 25f. or 30f.

GREAT HEWAS UNITED.—Nov. 2: We are extending the 126 (or bottom level) east on a branch of tin above 3 in. wide; we think this is the lode, or will lead to it, and calculate some few fathoms to drive before meeting with the run of rich tin followed to the 116 by former workers. We have reached the eastern extent of the 116 old driving, and found the lode in the end 1 foot wide; rich work, beautiful ground, and cheap and easy for driving. We shall not be able to do much in this end for several days, having to clear a winze from this level to the 106 for ventilation. The 106 and 96 are not cleared to the extent of the old drivings as yet. So far as we have seen the mine in the recent driving—from the 86 to the bottom, the lodes, or character of the ground, are equal, or better, than I expected to find; yet it must be understood we have the various levels to extend on the lodes, the old workers took away nearly all the opened out close to their driving, with the exception of the bottom level, where they had not seen the lode. The 116 cross-cut is not so easy for driving as it has been, and we have not driven far enough to reach the south lode as yet.—Western Mine: We are still driving the 76 south towards the south lode. In the 66 we are driving by the side of the lode in good easy ground, worth 3f. per fm. We intend taking down the lode by the steepness, in order to send on the end with all speed; the last piece of the lode taken down was 4 ft. wide, not rich, but yielding stamps work. We are driving the 46 by the side of the lode; we drove 10 fathoms in this level last month, and the piece of the lode now taking down is 2 feet wide—average stamps work. Our late operations westward are on the south lode, and being generally of a thinny character, and speedy ground for going ahead, we shall require another shaft. There is an old shaft 3 fathoms below the adit, and in a good position; we propose getting the same down with all speed, by sinking and raising to it from the under levels, therefore an extensive working can be made in this direction very rapidly.

GREAT HENSW CONSOLS.—G. Rickard, Nov. 1: At the engine-shaft the ground is a little harder. There is nothing fresh to report from the cross-cut in the 107. In the 107 east I have ascertained by boring that a portion of the lode is to the south of the part the end is being driven on, with a horse of ground about 2 ft. thick between; this portion is about 3 ft. wide, and contains a little ore. In driving the two parts will probably make a junction a short distance from the present end. The part of the lode which the end is now being driven on is 3½ feet wide, and is improving for ore, yielding at present not less than 1 ton per fm. I may add, no upper level having been driven so far east in this end, is entirely in whole ground, and to whatever extent the ore may be as to quantity, it is unquestionably from a fresh shoot, which is nowhere seen in the upper levels. No lode has been taken down in the 107 west since last report.

GREAT RETALLACK.—W. H. Reynolds, Oct. 29: The state of the mine is much the same as reported last Wednesday. We have still good stones of lead in cross-cutting the lode in the 30.

GREAT SOUTH TOLGUS.—J. Daw, Nov. 2: The lode in the 100 fm. level, west of Lyle's shaft, is 2 ft. wide, producing a little copper ore, but not enough to value. In the 90 west the lode is 2 ft. wide, unproductive. The lode in the 80 west has very much improved in the past week, now 2 ft. wide, producing 4 tons of ore per fm. The lode in the winze sinking below the 80, west of new shaft, is 3 ft. wide, producing 1½ ton of ore per fm. In the 70 the lode is 1 ft. wide, very promising. In the 60 west the lode is 3 ft. wide, producing 3 tons of ore per fm.; this level is very much improved. In the 50 west the lode is 1 ft. wide, producing 1 ton of ore per fm.

GREAT WHEAL ALFRED.—M. W. Michell, Wm. Arthur, Oct. 29: Copper-house shaftmen are engaged in cutting ground for bearers and cisterns in the 210. The lode in the 210 west is 4 feet wide, worth 7f. per fm.; in this level east we have cut into the south part of the lode 4 ft., which is ore, but no south wall is yet to be seen. We have also cut into the south part of the lode in the 200 east 5 feet, yielding 1½ ton of copper ore; the north part is saving work for 2 ft. wide. The lode in the winze sinking below this level is 6 ft. wide, worth 40f. per fm. The lode in the 200 west is 3 feet wide, producing some good yellow ore. The lode in the 190 west is 3 ft. wide, worth 7f. per fm.; the ground is very favourable; the lode in this level east is still disordered. No change to notice in the 180. In the 160 cross-cut south we have intersected a small branch, containing some rich yellow ore; it is not improbable that we may be nearing some unknown lode, the cross-cut being a piece of whole ground.

GREAT WHEAL BADDERN.—J. Hampton, Oct. 29: The sumpmen are busily employed putting down pitwork, and I do not suppose the shaft will be sunk any deeper before the engine goes to work, but that depends on the weather party. The shaft is now 32 fathoms deep, and will have due notice of the engine going to work.

GREAT WHEAL FORTUNE.—J. Daniel, R. Pryor, Nov. 2: Tegg's lode, in the rise above the 70, is small and poor. In the 60 cross-cut north the lode is not yet seen. Trebleck's shaft on the north lode, below the 40, is suspended on account of water. In the 40, west of Trebleck's shaft, the lode is 3 ft. wide, saving work for tin and copper ore. In this level, east of shaft, the lode is small and unproductive. In the stopes in the bottom of this level, west of shaft, the lode is 4 ft. wide, worth 40f. per fm. In the stopes in the back of this level, east of shaft, the lode is 2 ft. wide, worth 10f. per fm.—Carmichael: In Painter's engine-shaft, sinking below the 48, the lode is 6 ft. wide, producing a little tin, but not enough to value. In the 84, east of Painter's, the lode is 3 ft. wide, yielding tin-stone of low quality. In the 36, east of said shaft, the lode is 4 ft. wide, yielding 20f. per fm.; further improvement in this end is shortly expected. In the 26 west the lode is 1 ft. 6 in. wide, unproductive. In the 20, west of Crotch's, the lode is 3 ft. wide, yielding a little tin. In Hoskins' flat-rod shaft, below the 36, the lode is 2 ft. wide, worth 12f. per fm. In the 36, west of Hoskins' shaft, the lode is 6 ft. wide, worth 20f. per fm.: this end is suspended for a short time suspended, in consequence of a rise of ground in the shaft above the 18. Operations are being carried on without delay to secure the same, which will probably engage us a fortnight from this time. In the 18, east of Hoskins' flat-rod shaft, the lode is 4 ft. wide, worth 10f. per fm.

GREAT WHEAL VOR UNITED.—T. Gill, R. Richards, F. Frances, E. R. Ridgeway, J. Holman, W. Thomas, A. Trelease, Oct. 31: In accordance with your instructions, we beg to state that we have carefully examined Wheal Vor Old Mine, and also Wheal Metal, and have decided on exploring ground in the under-mentioned shafts, winzes, levels, and rises, for the next three months, should it meet your approbation, and after that period we are of opinion that many of those places will yield well, and open out some good tin ground, and enable us to increase our returns.—Wheal Vor: Borlase's shaft to sink below the 248, on the course of the main lode, by twelve men; the men are employed at present putting in wheels and fixing rods for that purpose; we shall be able to explore the lode much faster by sinking it on than we should by sinking the old shaft and driving cross-cuts, and we hope in the course of a few months to have a communication from the 248 to the 145, as we are all of opinion that it will pay for working, and we shall be able to bring the kibble down on the course of the lode. Treleavon's shaft, we shall commence in the course of the week to clear from the 248 to its bottom, which we are informed is about 8 fms. below that level; our object in sinking this shaft is to explore west and east towards Popham's bottoms, where they had a good bunch of tin when they worked it last. In the 256, west of Bounder shaft, on the main lode, to see if it will improve. In the 256, east of Bounder shaft, the lode is very heavy, and, during the past three weeks the water has risen here about 4 ft., and hindered our working for the present, but I hope this will continue no more than a few days; meanwhile I have put the four men to stop a little from the winze recently sunk in the bottom of the 16. The bad weather has been rather against us in our dressing operations, but I shall, as far as possible, prepare 2 tons of lead for the sale on the 10th inst.

MOLLAND.—T. Bennetts, Nov. 2: The engine-shaft is divided and cascaded, and ladder-road fixed to the 42. The kibble will be sent there to-day. The sumpmen are now driving a cross-cut south to the lode, which may take them from three to four weeks to complete, after which they will have to sink a fork, and cut a plat; set to six men to drive 2 fms., at 5f. 10s. per fm. The lode in the 32 cast is large in the back of the end, with good spots of ore; but in the bottom it is divided, and cut off, to the side: we have, however, got through the slide in the bottom, and find the ground to be a healthy killing, with a small branch or two spotted with ore, which will, no doubt, lead to the counterpart of the lode; set to two men 1 fm., at 2f. 10s.; the rise in the high back of this level being very hard, we are now stopping the ground, where the lode in one end will produce 1 ton of ore per fm. This ground is being stopped in conjunction with the other stops in back of this level, where the lode is looking much the same as last week, producing from 1 to 1½ ton per fm.; set to six men 2 fms., at 5f. 10s. per fm.

NETHER HEARTH.—W. Vipond, Oct. 28: There is no change of importance since my last report.

NEW WHEAL VOR AND EAST WHEAL METAL.—P. Floyd, Nov. 3: In Brunton's shaft, sinking below the 20, the lode is 4 ft. wide, producing saving work for tin, and of a most promising appearance. East of the shaft we have 8 fms. of whole ground to stop away between the 12 and 20 fm. levels. This contains that part of the lode which we passed through in sinking the shaft, and which at the 18 was worth about 20f. per fm. In the 20, driving east, the lode is 3 ft. wide, and for the last 6 ft. has carried a branch of very rich tin, which has greatly added to its value. If this continues, we shall have the best sampling that ever we had since the mine has been at work. In the 12, driving east of said shaft, the lode is 4 ft. wide, producing occasional stones of tin, and of a most promising character. All other places in the mine are much the same as last reported.

NEW WHEAL VOR AND EAST WHEAL METAL.—Joseph Vivian, N. Thomas, Oct. 29: To West Bramble: The shaftmen are employed in cutting ground for bearers and cistern in the 30. The lode in the 30, driving east, is 2 feet wide, producing stamping work. The lode in the same level, driving west, is at present unproductive. The lode in the 20, driving east, is worth 15f. per fm. The lode in the stopes in the back of this level, east and west of shaft, are worth 12f. per fm. The lode in the 10, driving east, is producing stamping work. We have suspended this level, driving west, until such time as we have held the winze to the 20; the lode in this winze is worth 15f. per fm.—Pickup's Lode: We

extent of ground to the west of this shaft not explored. The 115, to drive west of Wolf's shaft, on the main lode, by six men; the last lode we took down in this end produced 9 lbs. of tin to the ton of stuff. We intend to enlarge Grey Ore shaft from surface to the 60, for the purpose of putting in pumps and sinking it between that level, by six men. A rise in the back of the 204, east of Borlase's shaft, on the main lode, by eight men, for ventilation and stopping the ground. A rise in back of the 225, east of Borlase's shaft, on the main lode, by eight men, for the purpose of stopping the ground and ventilation.

—Truman's Lode: The 62 to drive west of Sam Bank shaft, on Truman's lode, by six men; the lode is 1½ ft. wide, producing good stones of tin ore, but not sufficient to value. The 52 to drive west of Sand Bank shaft, on Truman's lode, by six men; the lode is 1½ ft. wide, but poor. The 40 to drive east of Sand Bank shaft, on Truman's lode, by six men; the lode is about 4 ft. wide, worth nearly 10f. per fathom.—Carleen: We have nine men preparing and fixing pitwork for the purpose of draining the mine to the bottom.—Wheat Metal: Metal engine-shaft to be sunk below the 132, on Metal lode, by eight men. The 132 to drive east of Metal engine-shaft, on Metal lode, by eight men; the lode is yielding good stones of tin ore. The 132 to drive west of Metal engine-shaft, on Metal lode, by eight men; the lode is 3½ ft. wide, worth 10f. per fm. The 122 to drive west of Metal engine-shaft, on Metal lode, by six men; the lode is 1½ foot, poor at present. The 122 to drive east of Metal engine-shaft, on Metal lode, by six men; the lode is large and wet, and poor for tin. The 100 to drive north-west of Metal engine-shaft, to intersect the north part of Metal lode, by six men. The 90 to drive west of Metal engine-shaft, on Schneider's lode, by three men and three boys; the lode is 1½ ft. wide, poor. The 80 to drive west of Metal engine-shaft, on Schneider's lode, by three men and three boys; the lode is small and poor at present. We have nine men employed in Ivey's shaft, to enlarge it from the 30 to the 70. In taking into account all the new and old bargains that we have named above, we cannot promise you more than 30 tons of tin per month for the next three months, which we are very sorry for. Our tributaries are but few, we have at present 62; we offered men on Saturday last 15s. in 11, and could set but one pitch. We have not found the 248 under the 236 winze so good as we calculated on; we think, as we mentioned before, that the bunch of tin in dipping east. Our stops in the back of the 236 and 225 have failed very much within the last fortnight. Our prospects are not looking so well as they were a month since; Metal will fall off several tons in its sampling this month, the rich lode we had in the shaft did not continue in the 131 ends as good as we anticipated, but we are of opinion that it will improve again shortly. Metal stops in the 110 are poor; as soon as we close the books for the tin sampling we shall connect Metal rods to the engine, which will take about 45 hours to do, if we had done so before it would interfere with us in our sampling, which is very small with all we could do. We intend to commence putting in timber in Borlase's shaft next week for two kibbles. All our machinery under and above ground is working very well. Our pitwork was never in better repair.

—Nov. 3: We have no change worth notice in our underground department since last reported. All our machinery throughout is working well.

HARWOOD.—J. Race, Oct. 28: The north lode is somewhat poorer to-day than it was before of late, it will be taken out in a fortnight, when we shall get to work in the end, which will raise ore much faster. We have had severe frost and a heavy fall of snow here this week, which have prevented us dressing ore, but it is raining at present, and I think we shall get on in a day or two.

HAWKMOOR.—J. Phillips, James Richards, Nov. 1: We have no alteration worth notice, our operations have been retarded by a breakage at the eastern-shaft on Wednesday night last, both the sweep-rods of the large wheel, the bishop's head of the semi-fob bob in the 10, and the main rod a little below the 30, have all broken, and had to be replaced by new. At present everything appears to be going on well, and the water is nearly down to the back of the 50. Above this level the men are all in regular working order. At West Hawkmoor we have dialed the adit, and find it has gone through the lode, which appears to be split in branches. We consider it advisable to stop the cross-cut, and drive on one of the branches. We weighed at Calstock, on Oct. 28, copper to the amount of 38 tons 14 cwt. 3 qrs. —No. 1, 25 tons 10 cwt. 2 qrs.; No. 2, 10 tons 4 cwt.

HINTON DOWN.—T. Richards, Nov. 2: Morris's engine-shaft continues to produce 3 tons of ore per fathom. The 110 west contains more capel, and for the present not worth more than about 2 tons per fathom. The 100 west will produce about 1 ton per fathom. The stop in back of the 100 west will produce 7 tons per fathom. The 85 west is producing some saving work. The winze below the 85 will produce 4 tons per fathom. The other points of operation are much the same. We sampled on Friday last, 235 tons.

HOLMBUSH.—N. Seccombe, Nov. 1: The lode in the 145 west continues much the same as last reported, producing occasional stones of ore, but more water oozing from the ground. The lode in the winze sinking below the 145, west of Lemon's winze, continue to produce from 3 to 4 tons of ore per fathom. The lode in the 160 west has been taken down, and as yielded from 3 to 4 tons of ore per fathom, of excellent quality. The lode in the 160, east of the diagonal, continues unproductive. The eastern slopes, in the back of this level, will produce 2 tons of ore per fathom. The middle slopes, also in the back of this level, will yield 1½ tons of copper ore per fathom. The western slopes will yield 1 ton per fathom. In the sinking of the diagonal shaft a fair progress is being made; it is now down about 12 fathoms below the 160, ground a little better for sinking. In the 132 fathoms level south, on the lead lode, the lode continues large, but is not producing any lead worth saving.

HUCKWORTH BRIDGE.—A. Pryor, Nov. 3: Hitchins's engine-shaft has been sunk 5 ft. in the past week; the lode is 5 ft. wide, spotted with ore, but not enough to value. In the 15, west from this shaft, we have been driving south to ascertain the width of the lode; in so doing we have intersected some very rich branches of ore, worth for this part of the lode, or the south part, from 1 to 1½ ton per fm., and the other part saving work for dressing. We have now driven about 10 ft., but no south wall as yet. The lode in the winze sinking below adit has also improved this week, being from 4 to 5 ft. wide.

KELLY BRAY.—S. James, Oct. 29: There is no change to notice in the 115 cross-cut, driving south, since last report; the ground is still mineralised, and mixed with braches containing mudi and spots of ore. The lode in the rise in the 95 east is 2 ft. wide, composed of quartz, mudi, and spots of ore. No lode has been taken down in the 70 west during the past week. The lode in the winze in the 55 west is worth 30f. per fm. The length of the winze is 2 ft. wide, and somewhat improved in the past week, now yielding good stones of ore. The lode in the 45 east is also looking better, producing large stones of ore, and likely to improve. The lode in the pitch in back of the same level is much the same as for some time past, worth 20f. per fm. No change in any of the other pitches to notice.—Eastern Mine: The ground in the 60 cross-cut, driving north, is somewhat eased in the past week, so that the men are making good progress. The lode in the 40 east is 2 ft. wide, composed of quartz, mudi, fluor-spars, and spots of ore, looking more kindly to become productive than for some time past. We weighed on September 1st on the 28 inst., which was 161 tons 20 cwt. and sampled for October 16 tons of about the usual quality.

LADY BERTHA.—F. C. Harpur, Oct. 31: Saturday last was our setting-day, when the following bargains were taken:—The 41, west of the shaft, at 8f. per fm.; the lode is 2 ft. wide, composed of capel, mudi, quartz, and a little spar. In the 41, east of the shaft, at 10f. per fm.; here we expect shortly to meet with the cross-course, after getting clear of which we may, looking at the ore ground in the level over, reasonably expect an improvement. The 30, east of the 20, east of the cross-course, part of the lode, or the south part, from 1 to

and broke some very good stones of ore. I have put those two men formerly sinking the shaft to drive a little on what I consider the most kindly spot, and shall be able to give you further information respecting it in my next report.

THE COAL TRADE.

The aspect of the London Coal Market has been very favourable during the week; house coals have advanced fully 3d., and Hartley's 6d. On Monday the whole 34 ships at market were sold, 27 going to supply gas contracts. On Wednesday there was again an animated market: 71 ships were for sale, of which only 10 remained on hand; of the 61 ships sold, 34 went to supply gas contracts. Yesterday the market was scarcely so brisk, yet only 10 out of 66 ships remained on hand; of the 56 sold, 25 went to supply gas contracts. The quotations at the close of the day were:—Best house, 19s. to 20s.; seconds, 17s. to 18s.; Hartley's, 14s. to 15s. 6d.; and manufacturers', 12s. 9d. to 14s. 3d.

According to the ordinary monthly return, it appears that the quantity of seaborne coals brought into London during the month of October was 283,849 tons, against 281,780 tons in the corresponding month of 1858; the increase in the past month has, therefore, been 2069 tons. The quantity brought by railway during the month was 93,941 tons 4 cwt., against 92,008 tons 9 cwt. in Oct., 1858—increase, 1932½ tons. The importations by canal in Oct., 1859, amounted to 1254½ tons; in Oct., 1858, to 1625½ tons—decrease, 371 tons; so that the gross receipts during the month by sea, rail, and canal inclusive have been 379,044½ tons. Comparing the importations during the first ten months of the present year with those of the corresponding period of 1858, we find that there has this year been an improvement to the extent of 4042½ tons, the imports having been this year 3,615,937 tons 14 cwt.; last year, 3,611,895 tons 3 cwt. Thus, of seaborne coals the quantity imported from Jan. 1 to Oct. 31, 1858, was 2,645,447 tons, in 8669 ships; whilst from Jan. 1 to Oct. 31, 1859, the quantity was 2,660,988 tons, in 8683 ships, showing an increase of 15,541 tons, although 14 ships less arrived. By railway, 949,157 tons 18 cwt. were received during the first ten months of 1858, and only 940,490 tons 19 cwt. during the corresponding period of the present year; the decrease consequently being 866 tons 19 cwt. And by canal, 17,290 tons 5 cwt. in 1858, and 14,458 tons 15 cwt. in 1859—decrease, 283½ tons.

The Secretary of State for India requires tenders for 3000 tons of Glasgow hard spirit, Laird's Welsh Hartley steam, Brymbo, Coed Talon, Russell's New Black Vein, Risca Black Vein or Merthyr (4 ft.) steam coal, before Nov. 8, to be delivered at Bombay; for 2000 tons steam coal before Nov. 10, to be delivered at Kurrachee; and 3000 tons Hartley's or Real Old Gawber (Oak's colliery) hard steam coals before Nov. 15, to be delivered at Bombay. [The advertisements for these tenders appear in another column.]

The St. Thomas's Hospital requires tenders for supplying 350 tons of best Wallsend coals—Lambton, Stewart's, or Russell's Hetton.

THE GREAT NORTHERN COPPER MINING COMPANY OF SOUTH AUSTRALIA has been announced during the week, and in our advertising columns will be found a transcript of the prospectus, with all details. The undertaking was only made public on Thursday, yet so rapid was the demand for shares during that day and yesterday that it was found necessary to close the list with all dispatch; and an advertisement to the effect that no applications will be received after Monday next appears concurrently with the promulgation of the prospectus in our issue of this day. The total amount already subscribed is within three or four thousand of the number of shares to be allotted, although there has not been time to receive communications from the country, Scotland, and elsewhere. This is a remarkable circumstance, and shows how ready the public is to respond to undertakings which are brought forward under the guaranty of gentlemen of known commercial position. It is, moreover, launched under the auspices of the North Rhine Company, and we learn that the shareholders of that association were the principal and first applicants for the shares of the Great Northern. Three of the directors of the North Rhine are on the board of the Great Northern, and the carrying on of the business connected with this latter has been entrusted to Mr. Hancock, the indefatigable manager of the North Rhine, a fact of itself which has tended materially to give confidence in the public in the bona fides of the enterprise; for the success which has attended the North Rhine, and the creditable manner in which the affairs of that company have been conducted, have naturally engendered the utmost trust and faith. The rapidity with which the capital of the Great Northern has been subscribed is a good encouragement to legitimate mining enterprise, and demonstrates the importance of having companies of this nature, promoted in a similar manner. When the North Rhine was brought out we held the same opinion, and it is not to be denied but that great impetus has been given to mining during the last year, while we are free to express our conviction that the anticipated success of the Great Northern will foster a still further desire, and stimulate the mining interest generally. A wise course, we consider, has been adopted by the Great Northern, in not having the board to consist exclusively of colonists, for, although gentlemen of local knowledge may be most useful in acting on the spot, as a committee or otherwise, yet they do not give that weight to London capitalists, or monied men, which is conveyed by the direction being in the hands of gentlemen commercially connected with the City. The prospects are so lucid, and the prospectus so carefully drawn up, that it is superfluous to alight on the merits of the enterprise, as respects the present and anticipated yield of ore. It is, however, important to mention that the Burn-Burns Company made overtures for the purchase of the property—a fact which at once stamps its value, as they have the means at hand of testing the various portions of the estate and obtaining the best opinions thereon.

MINING IN SPAIN.—Within the past few weeks some very interesting papers with reference to the Huelva mining district, to which the attention of English capitalists has been particularly directed recently, owing to the success which has attended the operations of several French companies engaged in the same locality, have been published in the Journal; and under the title of the Guadiana Copper Company another adventure has been organised, with a capital of 100,000/. in £1. shares, with excellent prospects of success. The value of the Tharsis Mine, in the vicinity of which the whole of the concessions to be worked by the Guadiana Company are situated, is generally acknowledged; indeed, it is reported to have produced even more copper than its rich neighbour, the Government mine of Rio Tinto. El Tharsis has a lode about 30 fms. wide, and is worked by an influential French company, with most satisfactory results; whilst the Guadiana adventures own, in addition to the neighbouring mine, the Alibar, whose characteristics are similar, the Amarguillo, the Amantes, the Cristobal Colon, and the Pizarro sets. Capt. John Fetherick has carefully inspected the district, and reports that it is highly mineralised. The Guadiana Company's mines have been formerly explored on an extensive scale, and a fine Roman adit has been discovered. Capt. Fetherick feels confident that, in the event of its being reopened, it will be found still to contain a large and valuable deposit of ore. Machinery will be necessary, but the mines being only a few leagues from the shipping port of San Lucar, the cost of transit is low, as compared with the other mines in the district, which ship at the port of Huelva.

MINERAL ENTERPRISE IN COPIAPO.—A journal published on the spot says:—"The state of the mines continues very prosperous. Tres Puntas has recovered all its former richness; new mines continue to be opened, and old which had been abandoned are being re-opened. This favourable movement has imparted a new life to the mining districts. Codicada is extremely rich, producing at its best sorting immense quantities of metal of no less value than 1000 mares of silver per cajon. The Alfin Halada is also scarcely less rich. The same may be said of the Buena Esperanza and other mines celebrated for their richness. The following is the official statement of work done in mines in this division:—Despachada, San Rafael, Cobriza, Ludei, Pillao, Plomiza, San Ignacio, Volcan, Monte Christo, Dos Amigos, Jesus, Alianza, Salvadora, Rosario del Llano, Victoria, Oriente, Espanola, Mercedes del Nido, Republica, Buena Esperanza Canadorela, Providencia Magdalena, and Membrilla. The total quantity of silver exported from all the above mines of Tres Puntas has amounted to 5716,72100 qallos. This is less by one-fourth than the exportation from the celebrated mines of Characallito. The mines of Characallito continued in good condition. Their export of silver ore for the month of July was 8031,6100 qallos. The mines from which this was taken were:—Delirio, Volcan, Dolores, Deseada, Bella-Vista, Gua de Carpa, Huasca, Reventon Colorado, Manto Cobo, Mendo de Ossa, Santa Ines, Mercedes, Loreto, Mantu de Perata, San Francisco, Descubridora Colorado, Deslimpión, Mineralogista, San Jose, San Antonio del Mar, Dolores, Santa Rita, San Felix, Valenciana, Bolaco Nuevo, Bolaquita, Esperanza, Bella Vista, Margarita, Nuevo Retamo."

MINING IN CANADA.—**TESTIMONIAL TO CAPT. JOHN SPRAGUE.**—The workmen employed at the Wellington Mines, Lake Huron, have presented Capt. John Sprague, who has been discharged, as they consider, without just cause, with a gold hunter watch and chain of the value of about 45/. In presenting the testimonial the miners sympathised with the captain, and "affirmed that no man could do more for the owners than he had done." As to the mine not being worked to advantage, they say that "it is utterly impossible for any man to work it to more advantage," and this they state as practical, not theoretical, miners. Capt. Sprague appropriately acknowledged the testimonial, and remarked that he thought a little misapprehension on the part of the managers and directors of the company had led to his recall. From time to time he had indirectly consulted the most intelligent of the miners at work in the Wellington Mine, and after due deliberation he considers their present mode of working to be the most judicious and economical that could be adopted to ensure success in that locality.

GOLD IN BRITISH COLUMBIA.—The correspondent of the *Times*, dating Victoria, Sept. 15, says:—"The mines continue to produce a satisfactory yield of gold. Such miners as abandon good paying diggings for reported richer ones generally fail and give a bad name to the mining country. The 'wanderings' of a body of miners who went from the lower part of Fraser's River to Fort Alexander, in New Caledonia, several hundred miles off, are likely to end in disappointment. A party which went to Queen Charlotte's Island lately have also returned. Some of the adventurers saying there is no gold on the island—others, that the party did not 'prospect' sufficiently—and some asserting that the country is rich, and showing gold in proof of their assertion. As to British Columbia, I have irrefragable proof in the quantity of gold exported, in the revenue collected, and in the merchandise consumed, that the individual miner earns much more than was ever earned in California or Australia."

ST. JOHN UNITED MINES.—We understand that another mine of great promise and character is about to be launched next week, which has produced splendid ore, and of which large specimens (over a ton) are to be seen at the offices of the company. It is said by competent judges that these ores are of the finest and richest quality ever shipped to England.

The Tin Standard has declined this week 4d. The price for common is now 125s., and for refined 131s.—*West Briton*.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, November 4, 1859.

COPPER.	£ s. d.	BRASS.	Per lb.
Copper wire	6 1 2 —	Sheets	10½d.—11½d.
ditto tubes	6 1 2½—0 1 2½	Wire	10½d.—
Sheathing & bolts	6 1 0 —	Tubes	12½d.—13d.
Bottoms	6 1 0½—		
Old (Exchange)	6 0 10½—	FOREIGN STEEL.	Per Ton.
Best selected	110 10 0 —	Swedish, in kegs (rolled)	17 10 0—
Tough cake	107 10 0 —	" (hammered)	19 0—19 10 0
Title	107 10 0 —	Ditto, in faggots	21 0—
Burn Burns	109 10 0—110 0 0	English, Spring	18 0—23 0 0
		Bessemer's, Engineers' Two 44	0 0—
IRON.	Per Ton.	Spindles	30 0—
Bars, Welsh, in London	6 12 0—0 0 0	QUICKSILVER.	7 0 0 p. bottle
Ditto, to arrive	6 12 6—		
Nail rods	7 7 6—7 10 0	SPELTER.	Per Ton.
" Stafford, in London	7 15 0—9 10 0	Foreign	20 15 0—21 0 0
Bars ditto	8 5 0—9 10 0	To arrive	21 0—0—
Hoops ditto	9 0 9—9 15 0		
Sheets, single	9 5 10—10 0	ZINC.	
Pig, No. 1, in Wales	3 15 0—4 15 0	TIN.	
Refined metal, ditto	4 10 0—5 5 0	English, blocks	132 0 0—
Bars, common, ditto	5 12 0—6 15 0	Ditto, Bars (in barrels)	133 0 0—
Ditto, merchant, in Tins	6 10 0—6 15 0	Ditto, Refined	135 0 0—
Ditto, railway, in Wales	5 15 0—6 5 0	Banca	134 0 0—
Ditto, Swed. in London	11 10 0—16 0 0	Straits	131 0 0—
LEAD.		TIN-PLATES.	*
English Pig	21 10 0—23 5 0	IC Charcoal, 1st qua. p. bx.	1 11 6—1 12 6
Ditto sheet	22 10 0—23 10 0	IC Ditto 1st qua.	1 17 6—1 19 6
Ditto red lead	23 15 0—24 0 0	IC Ditto 2d qua.	1 16 6—1 17 0
Ditto white	30 0—31 0	IC Ditto 3d qua.	1 15 6—1 16 0
Ditto patent shot	25 0—25 10 0	IC Coke	1 16 6—1 17 0
		TD Ditto	1 11 6—1 12 0
		London	20s. less at the works.
		Yellow Metal Sheathing	p. lb. 10d.
		Indian Charcoal Pigs	— 6 10 0
		In London	

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—A tolerably fair amount of business has been transacted in our market, and prices have undergone but slight alteration, excepting tin, which has been reduced in fixed rates to the extent of 4d. per ton.

COPPER.—The smelters appear to be well off for work, although there is no regular and steady demand. Shipping orders continue to be given with caution. Yellow metal has been in fair request.

IRON.—No new feature has arisen in the market; the trade remains dull, and prices have a drooping tendency. Welsh and Staffordshire descriptions are nearly alike affected, enquiries being very limited. Scotch pigs have exhibited but little animation, and quotations have gradually given way until to-day, when a slight resuscitation took place, and mixed numbers were quoted 3d. per ton higher from the lowest point: present price, 51s. 6d., mixed numbers, g.m.b. f.o.b. in the Clyde.

LEAD.—In small orders for home consumption there is a fair business doing, but for exports comparatively no enquiry exists. Foreign orders for some time past have been few and small, unless at prices very much less than sellers are disposed to accept.

SPELTER.—A few lots have changed hands at 20½s. and 20½s. 6d., at which the market closes quiet. The stock here is very much diminished, being only 3746 tons, against 4567 tons same period last month; and the price in Hamburg forbids further importations. So long as the two markets remain in their present position a constant drain will be made upon the stock here, which may enable holders eventually to work the market up a little, and place it on an equal footing in price to the Hamburg market.

TIN.—In English there has been a decline of 4d. per ton, and foreign has been considerably weakened by the announcement. Buyers of Straits at 130s.; sellers scarce at 131s. Banca can be bought at 134s. The market in Holland has fallen.

TIN-PLATES.—Quiet, without alteration in price.

STEEL.—Sales continue to be made at about 19½ per ton. KB brand is held for 20d.

LIVERPOOL, NOV. 3.—Our market still exhibits signs of considerable languor, and the only event of importance to chronicle is the further reduction of 4d. per ton on both common and refined tin, making the entire fall since the Dutch East India Company's annual sale in July last of Banca of 6d. per ton on common, and 10d. per ton on refined, thereby showing the demand for common has not fallen off in the same ratio as refined, which is almost exclusively used in the manufacture of tin-plates. On the surface this would seem to afford relief to the tin-plate makers, the prices lately obtainable having barely covered cost; but it is to be apprehended that the advantage which might accrue to them will be counteracted by the expectations of buyers to get plates at further reduced rates, and until the supply is regulated by the demand they will exercise a predominating influence over the market. Manufactured iron is without material change, and slow of sale. Scotch pig-iron, under the action of a report of an intended reduction in the French tariff, has slightly improved in tone—51s. 6d. having been accepted here on Monday, and may now be quoted 51s. 6d., mixed numbers, warrants, f.o.b. in the Clyde. The shipments this week are 10,192 tons, against 9201 tons in the corresponding period last year. Lead is very dull, and the price of pig nominal. English spelter very inanimate, as our local galvanising works are not so busy as they were. The following are the quotations:—Iron: Welsh bars, 6½s. to 6½s. 6d. to arrive, 6½s. ex warehouse; Staffordshire, best bars, 7½s. 10s. to 8½s. 6d. according to quality; nail rods, 7½s. to 7½s. 6d.; hoops, 8½s. 7s. 6d. to 9½s. 5s.; sheets, 9½s. to 9½s. 10s.; Scotch pig-iron, No. 1, g.m.b., 6½s. per ton.—Copper: Cake and tile, 107s. 10s. per ton; sheathing, 1s. per lb.—Lead: Pig, 21s. 10s.; sheet, 22s. 10s.; shot, 25s. per ton.—English spelter, 19½s. 10s. to 20s. per ton.—Tin: Common, 132s.; refined, 135s. per ton.—Tin-plates: IC coke, 24s. 3d. to 26s.; charcoal, 31s. to 32s. per box, delivered f.o.b. here, usual terms.

GLASGOW, NOV. 3.—During the past few days our market has been rather quiet; a considerable business, however, has been done at current rates. Yesterday and to-day we have been much firmer, and transactions have taken place at 51s. 3d. to 51s. 4½d., prompt; 51s. 7½d. to 51s. 8d. one month; 52s. 3d. three months.—Shipments: Foreign, 5829 tons; coastwise, 4363 tons = 10,192 tons, against 9201 tons in the corresponding week last year.

BOSTON (U.S.), OCT. 20.—There has been more activity in mining shares than during the first ten days of the month. The mails from Lake Superior are still very irregular, and we are yet without definite advices from several mines. Money remains at 6 per cent. on first-class loans, but up to 12 per cent. is obtained on second-class securities. Ingot copper is without change.—**DUFEY, BECK, AND SAYLES.**

THE TIN TRADE.—Mr. N. Breebaart (Goll and Co., Amsterdam), under date Oct. 31, writes:—"Business has been exceedingly limited during this month, and the quietness which characterised the market in September has only been interrupted by some transactions at drooping prices—83 fl. and 83½ fl. in the beginning, and 81 fl. to 80 fl. towards the end of this month. Foreign buyers have remained altogether passive, and offers to sell at lower prices could only tend to make them more cautious, as they do not show the least disposition to lay in stock. The unsatisfactory position of political affairs, notwithstanding the treaty of peace, the small deliveries, and possibly also the excess in the arrivals available for the following sale, may be considered as so many causes to prevent improvement. Under different circumstances a fall of 4 fl. to 5 fl. would have brought about at least some transactions; but there are now sellers at 75 fl., with no buyers at the decline."

1859. 1858. 1857.

Stock on warrants amounted on Sept. 30 to Sibs 85,477 .. 99,285 .. 96,810

Deliveries in October 15,125 .. 20,669 .. 14,000.

Stock on warrants Oct. 31 72,352 .. 79,216 .. 82,810

Stock in the hands of Trading Society for their annual sale 57,745 .. 51,389 .. 58,945

The statistics alone present figures which do not seem to warrant any immediate improvement in prices. The comparative difference between the stocks has been reduced now to 6564 s

Now ready, price 1s.

THE PROGRESS OF MINING IN 1858,
BEING THE FIFTEENTH ANNUAL REVIEW.By J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1843), *Gleanings among Mines and Miners*, &c.

The FOURTEENTH ANNUAL REVIEW OF MINING PROGRESS appeared in a SUPPLEMENTAL SHEET to the MINING JOURNAL of Jan. 2, 1858.

A FEW COPIES of the REVIEW of 1853, containing Statistics of the Metal Trade, the Dividends and Percentage Paid by British and Foreign Mining Companies, and the State and Prospects of upwards of 200 Mines. Also FEW COPIES of the REVIEW OF 1852, 1853, and 1854, MAY BE HAD on application at Messrs. WATSON and CUELL's Mining offices, 1, St. Michael's-alley, Cornhill, London.

Also, STATISTICS OF THE MINING INTEREST. By W. H. CUELL.

WATSON AND CUELL'S MINING CIRCULAR, published every Thursday morning, price 6d. or £1 per annum, contains Special Reports of Mines, and the Latest Intelligence from the Mining Districts, from an exclusive resident agent; also, Special Recomendations and Advice upon all subjects connected with Mining, and interesting to Investors and Speculators. A Record of Daily Transactions in the Share Market, Metal Sales, and General Share Lists, &c. Edited by J. Y. WATSON, F.G.S., and published by WATSON and CUELL, 1, St. Michael's-alley, Cornhill, N.B. Messrs. WATSON and CUELL have made a selection of a few dividend and progressive mines, which they have reason to believe will pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.**INVESTMENTS IN BRITISH MINES.—**

Mr. MURCHISON'S REVIEW OF BRITISH MINING for the QUARTER and NINE MONTHS ENDING SEPTEMBER 30, 1859, with Particulars of the Principal Dividend and Progressive Mines, Table of the Dividends Paid in the last Four Years, &c., and of SPECIAL REPORTS on VARIOUS IMPORTANT MINES, IS NOW READY, price One Shilling, at 117, Bishopsgate-street Within, London.

Reliable Information and Advice will at any time be given on application.

Also, COPIES of "BRITISH MINES CONSIDERED AS AN INVESTMENT." By J. H. MURCHISON, Esq., F.G.S., F.S.S. Pp. 356, boards, price 3s. 6d., by post 4s. See advertisement in another column.

Now ready, price 5s.

TABLES FOR ASCERTAINING THE VALUE OF TIN STUFF.

By Capt. CHARLES THOMAS, of Dolcoth Mine, Camborne.

There are a few copies left, by the same author, of "Remarks on the Geology of Cornwall and Devon," price 1s., of which the *Cornwall Gazette* of April 29, 1850, says:—"The lectures of Capt. Charles Thomas are no common publication. It contains the observations of a keen and intelligent observer, and the conclusions of an original and powerful mind."—Redruth: James Tregaskis, Ticketing Paper office.**GEOLoGICAL MAP OF WEST CORNWALL MINING DISTRICT.**—Now in the hands of the Lithographer, a Map of all the Mines from Perranzabuloe and St. Agnes (inclusive), and Truro and Falmouth, to the Land's End. This map is from a new survey just completed, and contains the boundaries of every mine, both working and idle, and every known lode, &c., therein. Scale, 2 in. to a mile. Price, 2s. 6d. coloured, mounted and varnished.—Orders received by Mr. R. SYMONS, the author, at No. 11, Parade, Truro, and at the office of the *Mining Journal*, 26, Fleet-street, London, E.C.

Now publishing, a

MODEL OR RELIEF MAP OF CORNWALL.

By THOMAS SPARCO, Mining Engineer and Shareholder, 224 and 225, Gresham House, Old Broad-street, London.

This relief map or model of Cornwall is based on the 1 in. Ordnance Survey. It will measure 6 ft. 6 in. in length, and 5 ft. in breadth. It constitutes a perfect model from nature, contains the whole geological formation of the county, and illustrates the geology and the varied configurations of one of the most important mineral districts in the world. It will also contain and distinguish the position and names of every town and village in the county, as likewise the situation and names of upwards of 2000 mines.

The whole of the River Tamar will be included in this model, showing the various mines on the Devonshire side, situated within two miles of its banks, which will include the Devon Great Consols, Bedford United, East Russell, Devon and Cornwall, Tamar Consols, &c.

The great mineral-bearing districts are also distinctly delineated, with their table lands, plains, valleys, drainage, basins, water-partings, the courses of rivers, and their low and lofty coasts.

The whole of the colours and tints will be true to the colouring of nature, and the lettering will be executed by copper-plate engraving in the highest style of art, affording full reference to the towns, villages, and mining districts, as also to the granite, clay, serpentine, and other formations peculiar to the county.

Plane surface maps, of whatever character, fail to give accurate ideas. Take one example:—A series of dotted or curved lines are made to represent mountains; but the task of imagining elevations is difficult and painful, hence the great physical features of the globe remain comparatively unknown, and the terms table lands, water sheds, mountain slopes, &c., exist only as unintelligible and perplexing sounds.

It is a general complaint that the better the map the more difficult it is to be consulted, as the hill shading, when elaborately executed, obscures the lettering to such a degree that a lengthened examination becomes positively painful.

The eminent geographer, Alexander Keith Johnson, in writing on this subject says:—

"The art of portraying mountains on maps has not yet reached perfection. The principal merit of a map, next to accuracy, consists in distinctness, but here shading interferes, and we prefer giving a black line, thus — indicating the mountain ranges, to obscuring the map with futile attempts to give a clear idea of elevations. The physical position of a place, or its elevation above the level of the sea, is an element of great importance, but this information cannot be conveyed by means of an ordinary map; relief alone can effect it. To the geologist, faithfully executed reliefs are of the highest importance, as theories may oftentimes be confirmed, and ideas amplified, by such representations of the earth's contours, while to the military student, the engineer, and the traveller, they are almost indispensable."

Contrary to the ordinary models of localities, which are constructed of plaster of Paris, and are therefore cumbersome and liable to fracture, the raised map of Cornwall will be made from a novel preparation of paper mache, and will wholly avoid these objections.

In preparing and publishing the relief map or model of his native county, Mr. Sparco does not aim at present profit; his object is to aid the geologist and mining interest of the district in their important researches, by offering them the direct means by which to attain a correct knowledge of the peculiar features of the very mineral district to which their attention must necessarily be directed.

The subscription price of the model is £5 1s. Applications to Mr. THOMAS SPARCO, 224 and 225, Gresham House, Old Broad-street, London, E.C.

The Miners' Association of Cornwall and Devonshire.**AT A PUBLIC MEETING OF GENTLEMEN INTERESTED IN MINING IN CORNWALL AND DEVON, HELD at the TOWN HALL, CAMBORNE, on Wednesday, the 26th day of October,**

JOHN ST. AUBYN, Esq., M.P., in the chair,

ROBERT HUNT, Esq., F.R.S., explained the principles on which he proposes that a Miners' Association for these counties should be established, after which the following resolutions were proposed and carried unanimously:—

It was moved by Capt. CHARLES THOMAS, and seconded by CHARLES FOX, Esq.,

That this meeting approves of the formation of a society to be called "The Miners' Association of Cornwall and Devonshire," which shall devote itself to the encouragement and advancement of mining and mine engineering, promote the exchange of information and ideas, secure the record of the results of experience and observation, devise plans for the education of the practical miner in those branches of science which bear immediately on mining, establish collections which shall illustrate the geology, mineralogy, and physical phenomena of each district, and by all available methods aim at the improvement of the great mining interests of Western England.

It was moved by STEPHEN H. JAMES, Esq., and seconded by SAMUEL HIGGS, Esq.,

That since it is important that the advantages of this association should be as accessible as possible to all the miners of Cornwall and Devonshire, it is expedient to divide this great mineral district into four, to be called respectively the Western, the West Central, the East Central, and the Eastern Divisions, and that the leading miners in each division be invited to co-operate, so as to secure a good working arrangement.

It was moved by Capt. THOMAS RICHARDS, and seconded by Mr. JAMES SMITH,

That this association shall consist of Members who shall be mine agents, officers of mines, or such persons as shall be deemed eligible by a council, who shall pay as a subscription £1 per annum; of Graduates, who shall be working miners, and who shall pay a subscription of 5s. per annum; of Associates, who shall be the proprietors of mineral property, large mine adventurers and others, who shall have given donations to the association; and of Honorary Members, who shall be such men of eminence as the council may see fit to elect.

It was moved by R. W. FOX, Esq., and seconded by FREDERICK HILL, Esq.,

That this association shall be governed by a council, to consist of a president, eight vice-presidents, one, at least, of whom to be selected from the members of each division; twelve councillors, three to be selected from each district; a treasurer; four honorary secretaries, one for each division; and a general secretary.

It was moved by ROBERT H. PIKE, Esq., and seconded by R. Q. COTEN, Esq.,

That the following gentlemen be appointed a committee to arrange the details of the organisation of the "Miners' Association of Cornwall and Devonshire," with power to add to their number, and that Mr. Robert Hunt be requested to draw out a statement of the objects of the association, which shall, under the sanction of this committee, be printed and circulated extensively:—

RICHARD DAVEY, Esq., M.P.

JOHN ST. AUBYN, Esq., M.P.

NICHOLAS KENDALL, Esq., M.P.

J. J. ROGERS, Esq., M.P.

GEORGE SMITH.

W. J. HENWOOD, Esq., F.R.S.

JOHN S. BICKFORD, Esq.

CAPT. WILLIAM RICHARDS.

CAPT. CHARLES THOMAS.

CAPT. NICHOLAS VIVIAN.

CAPT. JOSEPH VIVIAN.

CAPT. THOMAS RICHARDS.

CAPT. WILLIAM DAWE.

It was moved by WILLIAM BURGESS, Esq., and seconded by FRANCIS DANIEL, Esq.,

That Mr. Robert H. Pike be invited to act as treasurer, and Mr. ALMOND E. PAULL as secretary pro tem.

It was moved by M. SYDENHAM FOX, Esq., and seconded by Capt. JAMES HOWE,

That the unanimous thanks of this meeting be, and are hereby, presented to Mr. ROBERT HUNT, for the very valuable and able exposition which he has made of the principles on which he proposes to establish for the counties of Cornwall and Devon a Miners' Association, considering that the attention which he must have devoted to this object for a very considerable period must have been done at a great sacrifice of his valuable time and labour.

It was moved by Capt. JOSEPH VIVIAN, and seconded by Mr. JONES CADY,

That the thanks of this meeting be given to the Chairman for the able manner in which he has conducted the business of this meeting.

ALMOND E. PAULL, Sec. pro tem.

Works published at the MINING JOURNAL office, 26, Fleet-street, London.

PRACTICAL TREATISE ON MINE ENGINEERING. By G. C. GREENWELL. In one vol., half-bound, £2 16s.; whole bound in Morocco, £3 10s. In two vols., half-bound, £3 3s.

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MAP OF CORNWALL. By T. SPARCO. Mounted, 10s. 6d.

MAP OF TAVISTOCK. By C. WILLIAMS. Mounted, 3s. 6d.

Notices to Correspondents.

AMERICAN DIGGING MACHINE.—Can any of your readers inform me where I can see the particulars of the American digging (or earth moving) machine? Perhaps some of them can furnish me with a description of a similar machine, or rather one capable of performing similar work.—WILLIAM BROWN: Northampton.

MINING EXCHANGE OF LONDON.—To the speculative public nothing can be more gratifying than your announcement that another attempt has been made to establish a Mining Exchange; for there can be no doubt that the "Corporation" assembly has been very prejudicial to all parties concerned, as it has induced the idea that the dealers in mine shares were not more respectable than they should be. Now, however, slack the rules of the New Mining Exchange may be, it must be apparent that all erroneous ideas upon this point will be removed, even if it be simply upon the principle that two words act courageously rather than let each other see signs of cowardice. The simple fact of the actions of the members of the Mining Exchange being subjected to a certain amount of inspection by the governing power appointed by themselves, must cause general honesty, even should one or two black sheep be amongst the flock; and thus greater confidence on the part of capitalists will be ensured. I entirely concur with your statement that the present is the most practical suggestion that has been made, and heartily wish the promoters of the institution success.—M.

ANTIMONY ORE.—A large sum of antimony ore has been discovered in the south of France. Can any of your correspondents inform me of its precise locality?—W. S.

ALUMINUM.—I was much disappoined to read, in last week's Journal, an unfavourable account of the progress made with regard to the introduction of aluminium, as, from the patents to which you have so frequently referred, the object of which seemed almost exclusively confined to the utilisation of aluminium, I had hoped that price was the sole obstacle to its general use. As to Mr. Barker's suggestion, that if it could be manufactured and sold at 30s. per cwt. it might be employed as a substitute for the zinc bath in galvanising iron, I consider it very valuable, and as at one time it appeared scarcely probable that zinc could ever be sold at its present price, I do not at all despair of an equal amount of success being arrived at with aluminium. As Mr. Barker appears to have had long experience with the new metal, may I ask him to state, through your Journal, whether it is really exempt from oxidation? If it be so, I believe that, even at a far higher price than Mr. Barker names, it might be used for the coating of wire to be employed for telegraphic purposes, as the waste caused by the oxidation of ordinary galvanised wire might be thus avoided.—J. W.

THE COST-BOOK SYSTEM.—Some time since I became a shareholder in a mine in Devonshire, conducted on the Cost-book System, which proving unsuccessful was dissolved, and all liabilities duly discharged. Some of the adventurers having been compelled, through threats of action by creditors, to pay much more than their due proportion of the debts, application was made to the Star Chamber Court for an adjustment of accounts; and the proceedings had reached a certain stage, when the Registrar called on the secretary to verify the several transfers on oath. This he was unable to do, and represented that it appeared to be unnecessary, as by the custom of the cost-book transfers duly signed and witnessed were always held to be valid proof of proprietorship; but the Registrar being of a different opinion insisted on compliance with his order, and thus matters are brought to a dead lock, and the complainants can obtain no redress. Such of your readers as are conversant with the working of the cost-book will be able to say whether the decision of the Registrar is correct or not; for, if right, shareholders are placed in a position very different to what is generally believed; and the decision seems tantamount to a denial of justice, as very few secretaries can, I think, conscientiously comply with the order adverted to.—A COST-BOOK ADVENTURE.

MINERS' INSTITUTION.—Being a constant reader of your Journal, I have frequently referred to the back volumes, which are now by many forgotten. In August, 1847, I find what appears to be the first mention of a place of meeting for mine shareholders and miners, and in the same month is "a plan to establish an Assurance Society amongst the Members of the Mining Profession." With regard to the "General Mining Mart and Club House," it was stated that several attempts had already been made to establish professedly public institutions, but that all had failed, so that priority seems due to this.

The names appended to the prospects are those of Messrs. Beckery, Crossman, Sommers and Co., and R. Tredinnick, but the scheme never seems to have met with much success, for scarce any further mention occurs of it. Now, if more than twelve years ago it was considered desirable to have a place wherein mine shareholders might transact their business, how much more so is it at the present, when ten times the amount of dealing is carried on. I trust that the necessity of the case will cause all party feeling and petty jealousies to give way, and that the Mining Exchange of 1859 will be unanimously supported. The attempt now being made to establish a Miners' Association of Cornwall and Devon would be rendered particularly useful by making it develop a good system of life assurance, and thus two long dormant ideas might be realised at the same time.—R. J.

ANGRAKKE CONSOLS.—In last week's Journal it is stated that mine had sampled 10 tons of ore. Will any one concerned inform me if this is the first sampling? as in the Journal of July 30 it is stated—"A parcel of from 50 to 60 tons of good ore are preparing for market?"—[The sampling referred to is the first that has taken place. If, however, application be made to Mr. W. Charles, the secretary, who is ever ready to impart every information respecting the mines with which he is in any way connected, our correspondent will obtain the information he seeks.—ED. M. J.]

BRISTOL MINING SCHOOL.—"Coal Miner" is informed that the excellent practical Lectures delivered at the Bristol School of Mines have been printed in one volume, and can now be obtained through our office—in paper wrapper, 1s. 6d.; and bound, 2s. 6d. each extra postage.

CHEAP STEEL & BEST IRON.—In referring to the Steel Trade, in last week's Journal, you state that Bessemer's steel is stronger, when in the form of boiler-plates, than Low Moor iron; but from your quoting his boiler-plates at 2s. per cwt. I am at a loss to know what advantage is gained without a statement of the price paid for the Low Moor plate against which it was tested. If Mr. Bessemer will state this, we shall be better able to judge of the fairness of the test. What I wish to know is—

What is the price usually charged by the Low Moor Company for plates similar in quality to that tested, and at what price Mr. Bessemer can supply plates of equal strength? We want a cheap plate, say not more than 11s. per ton, which can be used for shipbuilding, and with not less strength than Low Moor. This it seems to me Mr. Bessemer could accomplish, and if so, his discoveries would really be a boon to the country.—J. C. M.

SOFORD CONSOLS.—In the Journal of Oct. 22, in an article on "Mining in the Ashburton District," I see no mention of this mine. The sett was formerly well spoken of—what has become of it?—ALPHA.

METALLIC SHIPS.—I observe that one great objection to metallic ships appears to be the injury which the bilge water does to the rivet-heads, and this destruction seems altogether the result of the grinding of the head with the grit in the water; of this there can be no doubt, for by making a smooth surface for the water the defect is remedied, and it seems cement, bricks

from the vessel in which it has been placed it is precisely the same as when put in. It needs no argument to conclude that, practically considered, this discovery is of the greatest social importance, and that, as a means of adding to the stock of human food in this over-crowded country, it is deserving of the utmost consideration. At the onset of the investigation into the subject of decomposition, a gentleman connected with India suggested that a few hams, bacon, and cheese should be subjected to the influence of the process, to test its efficacy in still preserving, or rather preventing decomposition in food already subjected to the effects of salt. This was done with the intention, if it proved successful, of using the process for the purpose of curing or preserving perishable articles of food for consumption in the interior of India, or to be kept in hand an indefinite period at any of the stations. The result was so gratifying that the same gentleman was induced, the following year, to forward a much larger quantity. This was again received so well that it became requisite to look upon it as a distinct business of itself. To carry out this new feature in the undertaking, Mr. Jones was induced to have erected on his premises, 30, Bodolph-lane, the requisite apparatus to carry out the whole operation successfully; and certainly a more simple and yet effective plan to carry out certain known chemical laws could not have been devised. Here we have an air-pump on a large scale to exhaust a known quantity of air, or rather to rarefy the air to a certain extent. The tin is then filled with an inert non-decomposing gas, which destroys, or combines with, the whole of the oxygen left in the tin. The tin is then soldered up, and the operation is completed. From the testimony of different parties who have tried it in almost every part of the world, it is palpable that meat so preserved cannot be distinguished from meat just killed, no matter how long kept, or in what climate eaten.

Such an application of science must prove of the utmost advantage in enabling wholesome food to be provided for extensive mining establishments abroad, and in isolated districts at home; it is also of the greatest moment, and must in time revolutionise the entire system now adopted in victualling our armies and navy.

THE MINES AND MINING DISTRICTS OF WEST CORNWALL.—No. III.

Before proceeding to describe particularly the mining districts I have enumerated, it seems convenient to take a preliminary glance at some of the more important mechanical appliances employed in their development.

PUMPS AND PITWORK.—The first point to be considered in all mining operations is to ensure the complete drainage of the works. This is effected by columns of pumps, which are either drawing or plunger-lifts. The latter were introduced into Cornwall by Mr. Wm. Murdoch, Messrs. Bolton and Watt's agent; he does not seem to have intended them to supersede the drawing-lifts, but rather as an addition, so as to make the pumps double-acting, to suit a double-acting engine. They were first used in 1796 for this object at "Cakes and Ale" (now part of the United Mines). It is to a Cornishman (Capt. Joel Lean) that we owe their introduction to supersede the drawing-lifts. They were first used for this purpose in 1801 at Cremer and Oatfield Mines, in the parish of Crowan. At present, as everyone knows, drawing-lifts are only employed for very shallow workings, or for the bottom lifts of deeper mines. The quantity of water raised by any lift or lifts of pumps, and the power required to elevate it, is easily ascertained. The quantity of water raised in a given time, if there were no loss, would be equal to the volume engendered by the stroke of the uppermost lift; and the power required for each stroke would be the weight of the water in all the lifts, plus the hydraulic resistances and friction.

In the case of a shaft containing only a drawing-lift, the engine, or other motive power, in its upward stroke lifts the weight of the water on the bucket, and a certain weight of unbalanced rod, which latter should not exceed the amount necessary to enable it to make the down stroke by its own weight. In the case of a deep shaft, containing several plunger-lifts, with the usual drawing-lift at the bottom, the upward stroke lifts the weight of the water on the bucket of the drawing-lift, and a certain unbalanced weight of the main rod. This unbalanced weight must equal the weight of the water to be forced up by the plunger-poles in the downward stroke, together with about 20 per cent. for hydraulic and other friction resistances. This will give the power required for any one stroke; and, knowing the number of strokes per minute necessary to keep the water, we can from this calculate the constant power required. The weight of water in a column of pumps is found by squaring its diameter, multiplying the length in fathoms, and again multiplying by 2.045, which gives the weight in lbs., 2.045 being the weight of a circular inch of water 1 fm. in length. As there are 10 lbs. in an imperial gallon, the gallons can be found by dividing the weight in pounds by 10.

Let us take two examples:—1. A shaft with an 8 in. box drawing-lift, 30 fms. deep.—2. A shaft 200 fms. deep, with the following lifts:—Three 15 in. plunger columns, in all 100 fms.; one 12 in. plunger, 40 fms.; one 11 in. plunger, 40 fms.; one 10 in. drawing-lift, 20 fms.

In the first we have—

$$8 \times 30 \text{ fms.} \times 2.045 = 3,926 \text{ lbs.} = 1 \text{ ton } 15 \text{ cwt.}$$

In the second we have—

$$\begin{aligned} 15 \times 100 \text{ fms.} \times 2.045 &= 46,012 \text{ lbs.} \\ 12 \times 40 \text{ fms.} \times 2.045 &= 11,778 \text{ lbs.} \\ 11 \times 40 \text{ fms.} \times 2.045 &= 9,097 \text{ lbs.} \\ 10 \times 20 \text{ fms.} \times 2.045 &= 4,090 \text{ lbs.} \end{aligned}$$

Depth ... 200 fms. Load 71,778 lbs. = 32 tons.

Let us suppose, in the first case, that a 6 ft. stroke, making 4 strokes per minute, is sufficient to keep the water; this gives a velocity of 24 ft. per minute, raising 3926 lbs., or 1 ft. per minute, raising 94,224 lbs. In the second case, let us suppose a 10 ft. stroke, making 4 strokes per minute, is required to keep the water; this gives a velocity of 40 ft. per minute for 71,778 lbs., or 1 ft. per minute for 2,871,120 lbs. In mechanics, horse-power equals 33,000 lbs. raised 1 ft. per minute. Hence we have—

$$\text{In the first} \quad 94,224 \div 33,000 = 2.8 \text{ horse-power.}$$

$$\text{In the second} \quad 2,871,120 \div 33,000 = 87.0 \text{ horse-power.}$$

If to this we add 20 per cent., as before stated, for resistance and friction, we have the power required.—In the first case, equal to 3.36 horse-power; in the second case, equal to 104.4 horse-power.

The quantity of water delivered will be found by multiplying the diameter of the uppermost lift by the velocity per minute in fathoms, and again by 2.045. This will give in the cases we have taken—

$$\begin{aligned} \text{In the first} \quad 8 \times 4.00 \times 2.045 &= 523 \text{ lbs. per minute} = 32.2 \text{ gallons per minute.} \\ \text{In the second} \quad 15 \times 6.66 \times 2.045 &= 3064 \text{ lbs. per minute} = 86.4 \text{ gallons per minute.} \end{aligned}$$

The loss of water by leakage, &c., depends upon the state of the lifts; in good plunger-lifts it is trifling, but in ordinary ones it probably amounts to 10 per cent. on an average. In drawing-lifts the loss is much greater, probably double at least.

The effective power of the pumps depends a great deal on their rate of working, which should be neither too slow nor too fast. A velocity of about 40 ft. per minute is probably the best rate for a plunger-lift; and if it exceeds 90 ft. the loss of power will be sensible. Drawing-lifts may be worked much faster, even up to 200 ft. per minute, if the distance from the windboore to the bottom of the working-barrel is short, which should always be the case.

THE CORNISH PUMPING-ENGINE.—This single-acting, condensing, high-pressure, expansive engine is one of the most celebrated and successful machines ever devised, even by English mechanical genius, and does eternal honour to the county of Cornwall. None other of the various modifications of the steam-engine can equal it in effect,—that is, in producing a maximum amount of power with a minimum expenditure of fuel. The following are some of the more striking characteristics of this machine:—

1. It is *single-acting*,—that is, the steam is applied to one side of the piston only, and that during its downward course, or "in-door" stroke, when it lifts the load of rods attached to the other end of the beam, and the water in the drawing-lifts. On the return upward course, or "out-door" stroke, the rods in the shaft descend by their own weight, forcing up the water in the plunger columns, and drawing up the piston again to the top of the cylinder. This mode of action is, beyond all others, peculiarly applicable to pumping, and particularly to plunger-lifts.

2. It is *condensing*,—that is, a more or less perfect vacuum is created under the cylinder, in a vessel called the condenser, by the condensation of the steam of the previous stroke by a jet of cold water. If this vacuum were perfect, the whole resistance of the weight of the air on the cylinder (14.7 lbs. per square inch) would be removed, and that amount of force gained over what would be the case if the steam were allowed to escape uncondensed into the atmosphere, as in ordinary high-pressure engines. The vacuum, however, never is perfect; but in a well-constructed engine the pressure in the condenser should not exceed 1-15th to 1-10th of an atmosphere, or from 1 lb. to 1.1 lb. per square inch, and the pressure in the cylinder should be very little more. The amount of power gained by this

condensation may be judged from the following example:—Assuming the vacuum in the condenser and cylinder of the 100-in. engine at Wheal Vor to be as good as this, we have an effective force of about 13 lbs. on each of the 7854 square inches of that cylinder, amounting to 102,102 lbs., or 45½ tons, gained in each stroke of the engine, less only the power required to work the air-pump employed in removing the condensing water, &c., from the condenser.

3. It is *high-pressure and expansive*, which is its essentially distinguishing feature. The principles of the great economy arising from the use of steam expansively, which was discovered by Watt in 1769, will be found in any work on the steam-engine. But Watt only proposed its application to low-pressure steam (that is, steam only exceeding a little the pressure of the atmosphere), from which, although the theoretical principle is the same, the practical benefit is not very important. It is to a Cornishman (Richard Trevithick, a man of mechanical genius second only to Watt himself, although unfortunately less persevering, and too versatile for worldly success) that we owe the notion (conceived in 1806) of substituting high-pressure steam and expanding it to a low-pressure previous to condensation. The notion was not carried into effect until 1812, when it was applied at Wheal Prosper, in a 24-in. engine, working with a pressure of 40 lbs. above the atmosphere in the boiler, the steam being cut off at 1-10th the stroke. This is generally considered to have been the first true Cornish engine erected. The application of this principle in the ordinary cylinder was, however, retarded for some time after this by the introduction of Woolf's double cylinder engine,—an extremely ingenious machine, but far inferior in practice to the single cylinder. It was not until 1820 that the Cornish engine finally settled down into its present form.

The following tabular diagram will show the mode in which high-pressure steam acts expansively. It assumes that in a cylinder with 11 ft. stroke, which requires a pressure of above 14 lbs. per square inch on the piston to overcome its resistances, the steam is cut off at the end of 1 ft. on the stroke, which, however, would be an extreme case of expansion, and is only taken for example:—

Length 1 ft.	38.9 lbs. pressure.	Length 7 ft.	9.4 lbs. pressure.
2 ft.	23.5 lbs.	8 ft.	8.6 lbs.
3 ft.	18.0 lbs.	9 ft.	7.8 lbs.
4 ft.	14.8 lbs.	10 ft.	7.8 lbs.
5 ft.	12.8 lbs.	11 ft.	7.0 lbs.
6 ft.	10.5 lbs.	Mean pressure	14.33 lbs.

By this it will be seen that when the piston is at rest at the top of the cylinder, a rush of high-pressure or percussion steam (38 lbs. to the square inch) is suddenly introduced (the cylinder below the piston being previously exhausted by condensation). After passing the first foot the communication with the boiler is cut off, and the remainder 10-11ths of the stroke is left to be completed by the expansion of the high-pressure steam already admitted. As this expands it, of course, becomes attenuated, and decreases in pressure, which decrease of pressure, or elasticity, is found to be proportionate to the increased space occupied by it, in accordance with a mechanical principle known as "Mariotte's law." The table shows the pressure at each foot; and by referring to it we see that at 5 ft. the pressure is only 12.3 lbs. per square inch. But we have assumed that it requires upwards of 14 lbs. to overcome the resistances of load, &c., on the piston, and it may now be asked,—How is it that at this point, and still more during the following 6 ft. of the stroke, in which the pressure is continually decreasing, that such a pressure—so far inferior to the resistances to be overcome—is able to continue to force down the piston? In fact, the expanding steam of itself would be inadequate to complete the stroke if it were not aided by the momentum still supplied by the upward movement of the mass of rods in the shaft, which at the beginning of the stroke were suddenly put in motion by the high-pressure steam, with a force more than double that required to overcome their resistances (which we assumed to be 14 lbs. per square inch, while the pressure of the steam was 38 lbs.). The excessive force of steam at the beginning of the stroke is, as were, held stored up in the momentum of the rods, to be again expended when, towards the end of the stroke, the steam force has become insufficient. By this means the excess of steam pressure at the beginning is distributed through the whole stroke, the exact amount of this excess at first being given out afterwards in momentum. The pressure of the steam before expansion is called the "initial pressure," which in this case is 38 lbs.; its pressure when it has expanded to its full limit is called the "terminal pressure," which in this case is 7 lbs.; and the sum of the pressures at each foot, divided by the length of stroke in feet, is the "mean pressure," in this case 14.33 lbs. The "index of expansion" is the number of times the steam is expanded, which in this case is 11.

It is obvious, at the first consideration, that the less the terminal pressure of the steam the greater the economy of working the engine; for, as this steam is of no further use but to pass into the condenser and create a vacuum, it is evident that whatever force it still retains is so much loss. Now, this terminal pressure is decreased in proportion as the index of expansion is increased, or as the steam is cut off earlier. But, as the mean pressure must be kept up, in order that the engine may do the work required, it is also clear that as the terminal pressure is decreased the initial pressure must be increased, in order to keep up the average. The extent to which this is possible, and the necessary attendant circumstances, are the great problems connected with the successful economical working of the Cornish pumping-engine. I shall only shortly refer to one of these circumstances here.

It is plain that the strength of the different parts of an engine, and of the pump-rods and their various connections, must vary with the force of the strain they are subject to. Now, in the case of an engine working without expansion, this strength would be proportionate to the force required to be applied to the piston to overcome the resistances of load and friction, and merely sufficient to bear this strain without the danger of breakage. But in an expansive engine this strength will not be sufficient; the steam in this case is at the beginning admitted, as already pointed out, at a pressure of frequently more than twice what is necessary merely to move the piston, and, of course, the engine and all the connected pump-rods must be made proportionately strong. This requires an enormous increase in the strength, weight, and consequent expense of the rods, &c., above what would be otherwise necessary; and is one of the disadvantages connected with the use of highly expansive steam. At the same time, however, the additional weight thus given to the rods is useful in affording a more considerable mass of matter in which the momentum given by the first rush of high-pressure steam may be stored up and distributed through the stroke, in the manner already shown. Indeed, without a considerable mass of this kind no very effective economy by expansion is possible; and the increased application of the principle in Cornwall is connected, to a great extent, with the continued deepening of the mines, and the consequent increase in the weight of rods. But the limit to expansion is, at a pressure of frequently more than twice what is necessary merely to move the piston, and, of course, the engine and all the connected pump-rods must be made proportionately strong. This requires an enormous increase in the strength, weight, and consequent expense of the rods, &c., above what would be otherwise necessary; and is one of the disadvantages connected with the use of highly expansive steam. At the same time, however, the additional weight thus given to the rods is useful in affording a more considerable mass of matter in which the momentum given by the first rush of high-pressure steam may be stored up and distributed through the stroke, in the manner already shown. Indeed, without a considerable mass of this kind no very effective economy by expansion is possible; and the increased application of the principle in Cornwall is connected, to a great extent, with the continued deepening of the mines, and the consequent increase in the weight of rods. But the limit to expansion is,

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is stated not to exceed one minute, and it is calculated that a moderate sized mine would frequently save £1. per day by adopting it. Competent judges have expressed the most favourable opinions of the machine, and we hope in a few weeks to publish a more detailed and illustrated description of it, for the information of our readers.

NORWAY, AND ITS MINING INDUSTRY.

It has been recently stated, by no less an authority than the King of Norway, that the mining operations of the country and its cognate industries is one of the principal, if not the chief of its interests—the source of much wealth, and the medium through which much of its labour is employed. If this statement, from such an authoritative source, needed substantiation, it could be fully verified by the fact that two of the Government mines have produced a net annual profit of something like £50,000; and that with inefficient machinery and a contracted amount of labour, it being contrary to a legislative enactment that more than 400 hands shall at any one time be employed on the two Government mines. The total produce from the mines at Kongberg, situated in the Anna Sophia district, from 1815 to 1835, was 114,374 mares of fine silver, which is equal to 228,748L. In the years 1832, 1833, 1834, the produce was respectively 55,591L, 52,434L, and 89,840L, which remarkable results were realised amidst the greatest difficulties; sometimes the almost abandonment of the mines; at others bad, and often dishonest management; and throughout the whole period unskilled mining and incomplete machinery. In 1830, an English company offered to purchase the mines in the Anna Sophia district, in which the Government mines are situated, but the King did not approve it, which was most fortunate for the Government; as from that very year the veins improved to such an extent that the most extraordinary riches were discovered. At the meeting of the Parliament, in 1833, the mines had yielded a large surplus, and it was fully evident that the mountains still contained enormous quantities of the precious metal; and there is no reason for believing that these riches do not continue to the present day, although, perhaps, to a somewhat smaller extent. Another English company has been organised, and this time succeeded in acquiring no fewer than 40 mines in the above-named district, all of which have been opened and proved to contain silver. If the same results are realised by this new company which accrued to the Government in 1833, the shareholders will have reason to congratulate each other upon their success.

MANUFACTURE OF IRON AND STEEL.

The number of specifications filed each week relating to inventions for improvements in the manufacture of iron and steel is so large, and in many cases the nature of the inventions appear so nearly identical with others previously patented, that it is difficult to discover in what the novelty consists. It is really lamentable to find so large an amount of money wasted in the payment of fees for patents of inventions neither valuable nor, legally speaking, patentable—an amount which spent upon scientific and practical researches would be far more likely to accomplish the object in view, that of producing a first quality metal at the minimum cost. We have before us two more of Mr. Robert Mushet's specifications, the one consisting in manufacturing cast-steel by the addition of tungsten, iron, and manganese to melted cast-iron which has been decarbonised or nearly decarbonised by having had air passed or forced through it whilst in a molten state, and being, therefore, an infringement not only of the patents of Messrs. Martien and Bessemer, but also of several previously obtained by himself. If before so uselessly expending money Mr. Mushet had troubled himself to have examined the patents taken shortly after Mr. Bessemer's *début* at Cheltenham, he would have found plenty which would cover all that he has claimed; and as to his notion that simple admixture of previously well-known fluxes with iron treated by the pneumatic process is of itself sufficient novelty whereon to sustain a claim he is marvellously mistaken, since amongst Mr. Bessemer's earliest claims he will find one wherein it is stated that fluxes which had hitherto been employed in the manufacture of iron and steel by then existing processes were equally applicable in the manufacture of the metals by his process; so that the patenting of manganese as a flux, wolfram as a flux, &c., is totally absurd.

Beginning with Mr. Mushet's invention, No. 691: this is the consecutive number attached by the officials at the Patent Office, not the 691st patent Mr. Mushet has obtained for the same idea. We again encounter the oft-claimed tungsten, iron, and manganese, which, by preference, Mr. Mushet prepares by mixing tungsten with what is generally known as "spiegel eisen," which almost makes us think that some immortal *berg geist* has taken up his residence in the vicinity of Coleford, and that he is continuously haunting the poor inventor (?) or that Mr. Mushet has received from some kind friend "a starling taught to say nothing but"—"spiegel eisen." Be this as it may, Mr. Mushet's invention consists in manufacturing cast-steel by adding an alloy of tungsten, iron, and manganese to melted cast-iron which has been decarbonised, or nearly decarbonised, whilst in a melted state, by air having been passed or forced through it. He adds the said alloy to the cast-iron, and stir the mixture, to incorporate the one with the other. The alloy of tungsten, iron, and manganese which he employs may be prepared by melting the oxide of wolfram or tungsten ore, or deoxidised tungstic acid, or other oxide of tungsten, with "spiegel eisen;" one part of deoxidised wolfram and four parts of "spiegel eisen" form a suitable alloy for carrying the invention into effect, but he does not confine himself to these proportions, nor to any particular method of making the alloy. In the specification of the patent No. 703, Mr. Mushet declares that the essence of his invention consists in alloying cast-steel with titanium, in order thereby to improve the quality of the cast-steel (such cast-steel being prepared by melting blister or other steel in the ordinary manner), and in alloying titanium therewith.

An improvement in the manufacture of iron

antimony mixed with sulphuret of iron. This sulphuret of antimony is easily obtained by a subsequent process.

Zinc ore is treated much in the same manner as lead ore. The blonde is pulverised, mixed with a sufficient quantity of spongy iron, and afterwards treated by the ordinary process applicable to calamine. In this operation, the sulphur of the blonde combining with the iron, the zinc becomes liberated, and is separated by volatilisation.

But perhaps the most important purpose to which the invention can be applied is the treatment of copper ores, which from the small percentage of copper contained cannot be profitably worked by existing processes. Of this class of ore large quantities are raised in the western counties, and especially from the young mines of Devonshire. The inventors of this process propose that all sulphures of copper (whether pyrites, grey copper, or black copper) shall be reduced to powder without being previously washed; to this they add more iron than is absolutely necessary for the desulphurisation—the excess of iron being intended to attract the reduced metals. After the fusion, which may be effected in a blast-furnace or a reverberatory furnace, a metallic residue remains, which is composed of ferruginous copper on the one part, and of other accidental metals on the other. The powdered product is submitted to a simple roasting process, the object of which is to oxidise the iron and copper, and to volatilise the other metals, if any. After this roasting, a bed is formed for the fusion with an excess of silica, and the mixture is then treated in a copper melting or a reverberatory furnace, which produces a silicate of iron and copper. The process is equally applicable to the treatment of all other sulphures, phosphures, arsenicures, and antimonitrites; and there can be little doubt that if the invention will accomplish as much as the patentees claim, it could be readily introduced into this country.

REPORT FROM NORTHUMBERLAND AND DURHAM.

[FROM OUR CORRESPONDENT.]

Nov. 3.—The Coal Trade is still somewhat inactive here, but as the weather has changed to severe cold some improvement may be noticed in the home and other trades.

A meeting was held at Tynemouth, on Tuesday, for the purpose of discussing the plan of a deep water dock at the Low Lights, or in some other place near the mouth of the Tyne. The meeting was very unanimous as to the necessity that has arisen for those docks, and was of opinion that it is absolutely necessary to form such docks for the accommodation and improvement of the port. It has been determined by the Tyne Commissioners to advertise for tenders for a powerful dredger, designed by Mr. Ure, the engineer for the Tyne, who calculates that this dredger will lift 700,000 tons of material per annum. By means of this dredger it is proposed to commence at the bar and work upwards, so as to increase the depth of water in the channel very materially. The hull of the dredger is to be of iron, and of the following dimensions—extreme length, 250 ft.; extreme breadth, 37 ft.; and depth of hold, 12 ft. These dimensions give a capacity of about 2200 tons. This immense vessel is to be of the same general scantling as a first-class vessel of the same tonnage. She is divided into nine water-tight compartments, is flat-bottomed, and will, with all her machinery on board, draw about 5 feet of water. The feature of this machine that stamps her at once original, is the fact of her having four internal wells, and four ladders, or bucket frames, a peculiarity of construction never before attempted, if conceived.

An unfortunate accident occurred at the Washington Colliery, an explosion of gas having occurred in the Maudlin seam, which caused the death of four persons, and also several horses. The inquest was attended by Mr. Dunn, the Government Inspector, and Mr. Cordonate, the viewer of the colliery, and several viewers from adjoining collieries, were examined as to the cause of the accident. It appears that the colliery is well ventilated, from 50,000 to 60,000 cubic feet of air per minute passing up the up-cast shaft; 14,000 cubic feet of the air passing into the district where the explosion occurred. It was given in evidence that the furnace was slackened a few hours the previous night for the purpose of making some repairs, but this it was stated would not materially reduce the current of air. It appears from the evidence that a fall had taken place at the sixth bord, and the gas had accumulated there, and was carried by the current of air to the place where the men were working. The jury returned the following verdict:—That the deceased died from the effects of gas produced by the explosion. We are of opinion that the explosion was caused by an accumulation of gas in the sixth bord; but by what means the gas escaped there was not sufficient evidence to show. The jury recommend that no one should be allowed to work in the mine with naked lights during the time the furnace is not in full power.

A meeting of the Stephenson Memorial Committee was held on Saturday, in consequence of the death of Mr. Robert Stephenson, when it was decided to proceed with the statue of Stephenson in Neville-street, Newcastle, as designed by Mr. Lough, and to hold a meeting in Newcastle shortly, to propose measures for the erection of a memorial of the son of the great engineer also. The idea of a Mining College, School, or similar scheme in connection with this monument has been again revived, and received much support, but no actual progress has been made as yet towards the realisation of such a desirable object.

The Ryhope new winning continues to progress satisfactorily, the depth now reached being 245 fms., and a boring made 10 fms. further has proved a seam of coal upwards of 7 feet in thickness.

Messrs. Hawthorn, of Newcastle-on-Tyne, have just completed the first of a batch of eight locomotive engines, which they have been commissioned to make for the railway at the Cape of Good Hope, of which Sir George Grey recently cut the first sod. This engine has been making trial trips on the Newcastle and Carlisle Railway, and as it is constructed on a new principle a short account of the modifications introduced may be interesting to your readers. It is built upon the plan of Neilson's patent, having outside cylinders, and the engine-work being built and completed independently of the boiler, which can at any time be detached and taken from the working mechanism. There are some slight variations in the construction of the boiler and the steam-dome, and one of the most important alterations is that there are four driving-wheels, each 5 feet in diameter, instead of the ordinary two, and one pair of running-wheels, which come last, and are 3 ft. 6 in. in diameter. The boiler has no external box to break the straight line between the large steam-dome at the one end and the chimney at the other. Messrs. Hawthorn have introduced some other improvements, which are likely to lead to the desirable result thus set forth: they have constructed the engine so as to consume its own smoke, so that great economy may be effected by the use of coal entirely, instead of the more expensive fuel of coke. By a simple process the fire may be quickly extinguished by the use of a jet of steam, and a "donkey" pump is placed by the side of the driver to supply the boiler with water from the tender. From the trials which have been made with the engine, it appears to work admirably, and the batch of eight will be a great acquisition to the new Cape Railway. This first engine has been named "Sir George Grey."

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

Nov. 3.—The receipt of several considerable orders from the Continent has led to more activity in the iron trade, and from most parts of the district we receive favourable reports. Many of the works enjoy substantial prosperity at the present moment, and even in those instances where depression has long been experienced a change for the better has taken place. The coal trade continues brisk, and some large cargoes have been exported during the week. Complaints are universal relative to the state of the tin-works, and throughout the year the proprietors of such concerns have been placed in most unfortunate situations.

The half-yearly meeting of the Newport Dock Company has been held this day, and from the revenue accounts it appears that the coal trade has improved considerably since last half year. A discussion took place with reference to the reduction of the dues, some shareholders urging that this measure would place Newport in a position to compete under more equal circumstances with Cardiff. The directors opposed the suggestion, and the Chairman observed that in the *Mining Journal* of last week he had seen a report of large shipments of Aberdare steam coal from Swansea, yet the dues there were not lower than at Cardiff. No resolution was arrived at on the subject.

It is stated that Messrs. Latch and Co. have won the Gilvach vein of coal in their level at Pontaberbray, which is being driven on the Oral side of the Ebbw Fach river. There is every promise of a large quantity of superior coal being produced, and as the slips will be close to the station, the vein will be economically worked.

At the Haverford Works a boy has met with an accident which caused

almost immediate death. He went into the crushing works, where he would seem to have had no business, and commenced throwing pieces of metal into the crushers. Presently the attention of the man in the room was attracted by the boy's screams, and on turning round he found that the unfortunate lad had been drawn between the crushers. He was dreadfully mutilated, and died soon after he was conveyed home. An inquest has been held, and a verdict of "Accidental Death" returned.

We have lately been remarkably free from fatal accidents in Monmouthshire, a circumstance to be attributed in no small degree to the vigilance and caution exercised by the overseers and general managers of the pit. Every precaution is adopted to avoid such catastrophes as have occurred in former years, and we are happy to find that the efforts of the authorities have been attended with such marked success. The ventilation of collieries is now studied to a greater extent than ever, and the latest appliances are adopted in order to secure a current of pure air. Thus, even in the most dangerous pits, comparatively few casualties have occurred; and we cannot doubt that the advantageous results of this system of watchfulness will henceforth be still more conspicuous.

During the heavy gale of Tuesday, Oct. 23, a small fleet of vessels laden with lead ore were overtaken by the storm near Pwllheli, on the Carnarvonshire coast. The *Claudia*, with 45 tons of lead ore, from Rhosyddon and Bachreddon, and Dyfngwm Mines, became a total wreck, with loss of all the crew. The *Priscilla*, 72 tons, and the *Bee*, 50 tons, were also lost, with the greater part of the crew. The two latter vessels had Dylife ores on board. The ores from all these mines were fully insured. It is feared that other vessels have gone down.

Large quantities of ore have been raised in the Forest of Dean, and all that can be procured is readily bought up by the Monmouthshire and Glamorganshire ironmasters for admixture with other ores. The Forest ore has long been considered as highly valuable for application to this purpose, but unfortunately the absence of railway communication greatly limits the amount of business. Several schemes for supplying this deficiency have been projected from time to time, but beyond the mere preliminary operations nothing tangible has resulted. At the Coleford Works a steady and flourishing trade is doing, and the same may be said of other concerns in the district.

The trade of Swansea during the week has experienced some diminution, consequent on the gales which have prevailed, and which have been productive of so much damage and loss of life along the coast. The foreign imports during the week are as follows:—*Chilian Packet*, 331 tons, from Caldera, with 450 tons copper ore, 4 tons unwrought copper, and 7 casks metal sheathing, for H. Bath and Son; *Lady Osiby*, 235 tons, from Husco, with 255 tons copper regulus, for H. Bath and Son; *Annie Fisher*, 313 tons, from Dalmouth, with 78 pieces hewn timber, 2555 pieces deal and deal ends, and 7 pieces lathwood, for Messrs. Lake and Thomas; *Alexander et Marie*, 110 tons, from Santander, with copper and zinc ore, for Messrs. Richardson and Co. The foreign exports during the week are:—300 tons Powell and Son's steam coal; 500 tons G. G. Francis's (Sugborough) steam coal; 390 tons Abramman steam coal; 300 tons Thomas' steam coal; 650 tons Peggy's steam coal; 500 tons Bwlifia steam coal; 300 tons Padley and Sterry's ditto; 500 tons Duffryn ditto; 500 tons Calvert's ditto; 2000 tons miscellaneous cargoes; 600 tons Warlich's patent fuel; 250 tons Couillard's ditto. Some large vessels are entered for loading, and several of large tonnage are registered for arrival.

Mr. Chas. Bath (of the firm of H. Bath and Son, well known as extensive shippers and copper merchants of the Ports of Swansea), was, on Tuesday, returned at the head of the poll as a member of the Swansea Town Council, being nominated by Mr. Richard Richards, brother of Mr. Alderman Richards, who is the managing partner at the Landore Silver Works. Mr. John Glasbrook, of the Gorse Colliery, was returned at the same time by a large majority.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

Nov. 3.—We have to report a quieter state of trade than we noticed in our last, and though makers are not in possession of so many orders, there are sufficient in hand to keep all the mills and forges going full time. The rates are not so well maintained, but we hear of no cases of underselling of sufficient moment to excite alarm as to the stability of the trade in general.

The Coal Trade is maintained with a degree of activity much greater than we have known for several past seasons, and at many of the larger collieries in Yorkshire an advance has been made upon those qualities of coal used for steam purposes.

The improvements which have been effected in colliery management in Derbyshire have attracted much attention of late, and on Wednesday his Grace the Duke of Devonshire visited the Staveley Collieries, near Chesterfield, which are the most extensive of the kind in England. They are the property of Mr. R. Barrow, and are noted for the excellence of the working arrangements, and the quality of mineral which is daily obtained from them. The noble duke was accompanied by two of his sons, Lords Frederick and Edward Cavendish, and by Messrs. Eddy and Wadsworth, his mineral agents. This party descended the Springwell Pit, accompanied by Mr. Barrow, Mr. Howard, the resident surveyor, Mr. Buxton, the resident viewer, and Mr. Oughton, who has charge of the ventilation of the collieries. After the descent had been made, their lordships proceeded to inspect the stables, which accommodate six horses and twenty-seven ponies. They next proceeded along the rig-roads, 530 yards long, and the furnace, which attracted special attention. The enormous quantity of 502 tons of coal have been sent down one of these roads in one day.

The ventilation of the colliery is effected by the rarefaction of the air in an upcast shaft, 12 ft. in diameter, and 80 yards in depth. Near the bottom of this shaft a furnace 11 ft. 6 in. wide, is kept constantly burning, and a current of cold air is thus continually in motion to restore the equilibrium. The cold air, so impelled by the pressure of the greater weight of the ordinary atmosphere, descends the two downcast (in this case the drawing and pumping) shafts, and after having been conducted through every part of the mine, finally comes along three main air arteries, or returns to the furnace. As the safety of the men, and, indeed, the existence of the colliery, depends upon the perfect action of the air currents, which dilute the inflammable gas, and also sweep away carbolic and other gases evolved from the coal, or produced by the candles and respiration of the miners, &c., it is of prime importance to ensure regular attention—firstly, in keeping up the furnace fire; and secondly, in maintaining the capacity of the airways. To accomplish the first of these ends Mr. Buxton has contrived a self-acting apparatus, called a detector. At intervals of twelve minutes, or otherwise, as desired, a bell warns the furnaceman to fire up; before firing it is, however, his duty to record a proof of his attendance by removing a numbered peg presented at a slit in a box enclosing the detector peg-plate: this peg must then be dropped into the detector peg-hole, where all the pegs consecutively numbered will be found by the ventilator. If the furnaceman has been attentive. In the event of neglect the peg is removed by a motion of the peg-plate at three minutes from the time of its first appearance at the slit; and detection of the omission, with the time of its occurrence, is thus recorded against the furnaceman. The two motions of the peg-plate, and the ringing of the bell, are effected by a small stream of waste water on its way to the pumping pit. The maintenance of the airways is the duty of a regular staff of men, and still further to ensure their uniform efficiency, Mr. Buxton has contrived and fixed near the furnace a ventilation register and indicator. An index hand shows at all times the quantity of air coming to the furnace, and a mark upon the index face shows the furnaceman the minimum quantity that he must maintain. Should an obstruction occur in the return the index hand exhibits the fact. The index-face forms the front of a locked box, in which another index works, to show, on examination by the ventilator, the actual minimum quantity since his last inspection. An addition to this apparatus is being fixed to record the precise quantity of air at each movement of the defective peg-plate, and thus to form a daily register of the ventilation. These apparatus are Mr. Buxton's own invention, and have been working about two years; they are highly appreciated and recommended by the Government Inspector of Mines in this district. The valuable application of the barometer of Mr. J. T. Woodhouse, of Derby, to warn the colliery manager of an excess of gas exuding from the pores of the coal, which occurs when the atmosphere is below the average density, is also in use at the furnace; and, together with Mr. Buxton's contrivance, was minutely examined by his Grace, who made himself thoroughly acquainted with their principles and modes of action. Mr. Woodhouse, who is the chief viewer of the colliery, was prevented from attending by a prior engagement. Their lordships also inspected a shaft in working, and altogether travelled about two miles underground. On returning to the surface they expressed to Mr. Barrow the gratification they had experienced at finding the pit so well conducted and salubrious, and to Mr. Buxton expressed a high estimate of the value of his ingenious contrivances. His Grace left a handsome donation for the workmen.

The Derbyshire lead mines are making steady progress, and a confident belief is entertained that the Eyam Mine, so long the El Dorado of Derbyshire, will be ere long as rich as ever. The shares are enquired for, and eagerly bought, at the quoted prices. Two new mines are being projected in the Peak of Derbyshire, and we shall in the course of a few days be enabled to speak of their merits. The Mill Town Mine is looking well, and capital is being raised to further develop the new Midland Mine, at Ashover. The prospects of the North Derbyshire Mine are improving, and it is believed that the pumping operations at Calver Sough will so far relieve the Wren Park shaft as to lay dry some good ground.

We have had a little more this week of the "safety-valve controversy." Mr. Elliott, of Manchester, has again asserted that he could blow up a boiler fitted up with Hopkinson's patent compound safety-valve. On Wednesday Mr. Hopkinson replies, and says, "200f. is deposited in the West Riding Union Bank at Huddersfield, and it now awaits Mr. Elliott

to place 50f. to it, in good faith of his statement, that if he can blow up a boiler fitted with Hopkinson's valve, the 200f. herein named shall be handed over to the Blackburn Infirmary; and if he cannot, his 50f. shall be forfeited to the same institution. The test to be upon one of two boilers at Blackburn, on which Mr. Elliott's valves are fixed, but now taken off and replaced by Hopkinson's valves, or at any other place where his valves have been taken off—Manchester, Stockport, Huddersfield," &c.

The coal miners, through their Chairman, Mr. Henry Hurst, have issued the following address to the coal proprietors of Lancashire and Cheshire:

GENTLEMEN.—We, the coal miners of the above counties, solicit your forbearance, and earnestly beseech your attention to the following brief appeal:—

We find that prosperity in trade has realised an advance of wages to some branches of labour. We have nothing to say against this; for if depression in trade causes why should not prosperity restore?

It may be wrong policy to seek good wages when trade is bad, but surely it cannot be wrong when trade is good to seek a restoration to that height from which depression has pulled us down. We wish not to contest an advance of wages at the present time. Experience has taught us that strikes are productive of evil. The stubborn will too frequently, right or wrong, say, I will be the conqueror, prolongs them to such a degree that their close is alike fatal to both, bringing disaster upon you and desolation upon us. Our object, therefore, in this instance, is to prevent the recurrence of the evil by removing the necessity for a strike. We, therefore, wish to approach you in such a manner that your better judgment may call forth your better feelings into action, and bring them to bear upon this matter, that you may not only consider our appeal, meet us in the same spirit, but grant our desires.

This is a widely different course from any taken by us in the past, but we feel confident that not only is it the safest, but also the wisest, if you will but consent to recognise it.

And when you are discussing the question in your meeting weak you to let the favourable opportunity, seasoned by good will, speak in our behalf, and then you are sure to restore us to the height from which we had fallen, or give us what, for the present, will prevent an interruption amongst us—10 per cent.

This is our desire, though we would much rather have a thorough restoration; and we think this a fine opportunity to make it. But if, after you have considered our appeal, you still think that to give the whole would be impracticable, then be it understood in that case that we are willing to accept 10 per cent. advance.

Let us and us for the future so act that good will may abound. We hope to receive an answer, through the same source that you receive this, not later than the 17th inst. and you will much oblige the members of the Miners' Conference, held at the Fleece Inn, Bradshawgate, on the 24th and 25th Oct., 1859.

MINERS' ASSOCIATION FOR CORNWALL AND DEVON.

Agreeably to advertisement, a public meeting was held in the Town Hall, Camborne, for the purpose of hearing from Mr. Robert Hunt an explanation of the principles on which it is proposed to establish a Miners' Association for the county of Cornwall; and the mining portion of Devonshire. The meeting was numerously and respectfully attended, about 200 being present, and those included many of the principal mine agents and others interested in mining in the county. Mr. Hunt was to have presided, but it appears that on his journey westward from London he was detained by the railway accident on Tuesday, near Dawlish, and a letter from him to that effect was received by Mr. Almond Pauli, the *pro tem.* secretary of the proposed association.

In the absence of Mr. Hunt, the chair was taken by Mr. J. St. Aubyn, M.P., who briefly opened the meeting, and Mr. Hunt, at much length, gave an exposition of the objects of the proposed association, and of the plan by which it was to be established and maintained. The first resolution, approving of the proposed formation of a Miners' Association for Cornwall and Devonshire, on the plan and for the objects suggested by Mr. Hunt, was unanimously agreed to on the motion of Capt. Charles Thomas, seconded by Mr. Fox. On the proposition of Mr. S. H. James, of St. Just, seconded by Mr. Higgs, of Penzance, it was resolved, for the purposes of the association, to divide the mining districts of Cornwall and Devon into four districts—western, west central, east central, and eastern. A resolution was agreed to on the proposition of Capt. Thomas Richards, seconded by Mr. Sims, naming the various classes of members—members, graduates, associates, and honorary members—with modes of admission and rates of annual subscription. Mr. R. W. Fox proposed, and Mr. Hill, of Helston, seconded a resolution providing for the government of the association by a committee consisting of patrons, president, and vice-presidents, councilors, treasurer, district secretaries, and a general secretary. The motion was agreed to; it was also a resolution proposed by Mr. Pike, and seconded by Mr. Coach, for the appointment of a committee to arrange details of the proposed association. On the motion of Mr. Burgess, seconded by Mr. Daniel, Mr. Pike was appointed treasurer, and Mr. Almond Pauli secretary, *pro tem.*, and to him it was resolved, on the motion of Mr. Hodges, seconded by Mr. Bennett, of Falmouth, that the application to become members of the association be sent.

Thanks were unanimously and most cordially voted to Mr. Hunt on the proposition of Mr. Chas. Fox, seconded by Capt. Jas. Rose, and on the motion of Capt. Jos. Vivian, seconded by Mr. Cady, thanks were also voted to the Chairman.

[The resolutions passed at the meeting, also some remarks on the subject, appear in other parts of the Journal.]

BEWARE OF CHANCERY SUITS.

FOWELL S. AIKEN; OR THE BEDMINSTER COAL COMPANY V. MALAGO VALE COMPANY.

EXETER DISTRICT COURT OF BANKRUPTCY.

Re SAMUEL GARRATT, railway contractor, formerly of the Malago Vale Colliery, Bedminster, near Bristol.

Mr. Wasbrough (of the firm of Stanley and Wasbrough) appeared for a creditor, and Mr. Stogden appeared for the assignees. This was a dividend meeting. Mr. Stogden entered into an explanation of the circumstances under which certain legal proceedings, which had now happily terminated, had arisen. The bankrupt was a contractor, and at the time of his failure he was engaged in constructing the Cornwall line. He was possessed of large property in Bristol, called the Malago Vale and North Side Collieries, embracing several seams of coal, and these were mortgaged to Messrs. Stuckey and Co., bankers, to the amount of 18,000L to 20,000L. The bankruptcy occurred in Aug., 1854, but the bankers had taken possession of the property in question in the May preceding. It was arranged by the assignees that the creditors should look on whilst the bankers worked the pits, in the hope that they would turn out profitably, and that the bankers would ultimately be paid off. About six months after the bankruptcy, seeing that the collieries in question were likely to be worked under the auspices of the bankers, a rival company, called the Bedminster Coal Company, wanted to stop the works, raise the price of coal, and

Mr. DELL, the official liquidator: None at all?—Mr. LUCAS said there were only seven contributors, and the amount proposed would be necessary to meet the claims on the company.—Mr. BAGLEY, on behalf of two contributors, asked for a regular debtor and creditor account, so that the contributors might see what was done, and what had been paid on the shares.—Ultimately it was ordered that the call should be 30s. per share.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

THE MARAZION DISTRICT.—RESULT OF A RICH MINE IN A DISTRICT.—Having visited the parishes of St. Hilary and Perranzathne, a few days since, after many years' absence from Cornwall, I was rather astonished to hear with what rapidity the once celebrated Wheal Caroline is being pushed on. I well remember Wheal Caroline yielding very large returns of copper ore, about 40 years ago, and its being suspended, owing to an accident to the machinery, mining being very dull at that period, and the price of metals very low. Wheal Caroline appears to be a very extensive sett, granted on liberal terms to some gentlemen connected with the rich Tolvaoden Mine. It is surrounded by the once celebrated Owen Venn Mine on the north-west, Wheal Trevelyn on the east, Wheal Neptune on the south, and Tolvaoden on the west. The sett is said to contain several parallel lodes. A 70-inch cylinder engine is just erected, with two boilers of 12 tons each, with pitwork to correspond. I wish the spirited adventures every success; and, from what I can learn, there is little or no doubt of this mine soon rivalling Tolvaoden, if not surpassing it.—H. JENKIN: Nov. 1.

GREAT NORTH TOLGUS.—They have commenced dressing the ore at this mine, and a parcel of good quality will soon be ready for the market. The lode in the back of the sett is still producing a large quantity of copper ore. During the past week men have been engaged clearing up the bottom of the level, where the lode proves to be quite as good as in the back. A shaft will be immediately sunk on the course of the lode, and there can be no doubt but that the result will be highly beneficial to the shareholders.

BORNFLOYD MINE sampled 30 tons of good quality ore, on Thursday, for tender on the 10th instant.

THE CARADON DISTRICT.—The statement in last week's Notabilia respecting the mines in this district would lead parties unacquainted with it to suppose that the rich lode recently discovered in the East Caradon sett runs direct through Great Caradon and Great Caradon and Stale; but such I am advised is an impossibility, as the former is upwards of a mile from East Caradon, in different strata of ground, and if they have the lode it must take a considerable twist, as certain parties try to make it appear is the case; and the latter mine certainly has as good a chance of participating in the pitches of that lode as the Devon Great Consols, it being directly out of the run of the Caradon lodes. The prospects at these two mines are surely sufficient to induce the shareholders to vigorously prosecute them, without having resort to subterfuge to obtain sufficient capital for their development.

WHEAL MARGERY has cut a rich lode, in the American shaft, of solid copper, 1½ ft. wide. All the other parts of the mine have improved: also, the western part, or Highbridge shaft, is producing large quantities of tin. It is calculated the present sampling will realise 1800t. per copper only.

THE MAUDLINS MINES.—We have frequently inserted the opinion of our valued correspondent, Mr. George Henwood, as to the promising nature of the MAUDLINS Mine, and we regularly publish the reports transmitted by Capt. William Tregay, the talented manager thereof. Two such efficient men are warrant enough to convince the public of the legitimate nature of the undertaking. We have only further to add that the locality of the mine is undoubtedly first-rate, being in the neighbourhood of Far Consols, Fowey Consols, and the best mines in that district. Par Consols is in 6400 shares, 2s. 6d. paid-up—7300t. They have paid 33s. 10d. per share in dividends—216,000t., and the selling price is 12s. 15s. per share, or £1,000t., showing a clear balance profit of no less than 200,000t. Fowey Consols is in 400 shares, 4s. paid-up—19,700t. They have paid 41s. 4s. 3d. per share dividends—263,589t. 16s., and the selling price is 37s. per share, or 14,820t., showing a clear balance profit of no less than 198,649t. From these two concerns nearly half a million profit has been derived. We see by an advertisement in another column that the present company have since the date of their lease—May 7, 1852—expended about 15,000t., and, requiring about 2000t. more, have determined to offer 2484 new shares of 1s. each to the public. About one-third are already taken by those interested in the concern, and their friends, and about 1500 will be distributed to the earliest applicants.

EAST WHEAL RUSSELL.—An important improvement has taken place in the 80 ft. level, where the lode is worth 1000t. per fm. As this is an extension of the ore ground already discovered and laid open, this mine bids fair soon to become profitably productive.

WEST WHEAL MARGARET.—During the past week they have met with the Carn Moor lode, which has given all the riches in the adjoining mine—Wheal Margaret. So far as at present seen it is of a most promising character, and is favourably situated for working by cross-cuts from the engine-shaft. The shaft on Wheal Nancy lode has been suspended for the present, in consequence of the heavy rains causing an influx of water; it is 6 fms. deep, and will pay for sinking. They have six men on tribute, at 9s. in 16. Altogether, the mine promises speedy returns; and, considering the locality and present indications, there is every reason for prognosticating a successful result to their operations.

WHEAL POLMEAR is looking well; the next sampling will be about 50 tons. The north lode is now worth 500t. per fm., and they are taking down rocks of solid ore, 4 and 6 cwt. each, showing it to be a splendid course of ore, but 35 fms. from surface.

GWYDYR PARK CONSOLS.—Capt. H. Rawson, under date Nov. 3, says:—We have broken down the lode both in the stope and middle level to-day, which are much the same as last reported. We are going on satisfactorily with our dressing. I put six additional men to work—four of them are clearing the adit level before us to the end, which I think will pay well; I cannot say how long it will take us to clear it, but not long, and the other two are standing for ore.

WEST ROSEWARNE.—This mine is in 1024 shares, about 9d. per share paid, and with excellent machinery. The shaft is down to the 70, where cross-cuts are made to the lodes are just commenced, and a good branch of ore is already cut. A discovery of importance is looked for soon.

SORTIDGE CONSOLS.—The agents report a discovery in the 40 east, on the new south lode, which, if it holds good, will prove of the utmost importance to the future of the mine, and also act as an illustration of what may be done by patience and a careful practice of known rules laid down by all authorities on mining. So far as developed, the progress of this mine is an interesting chapter on mining. A few years since a few parties joined together, obtained a lease of the sett, and commenced operations on a lode seen at surface, and which, at a very shallow depth, produced stones of such a character as to warrant a spirited trial. A company was formed, and the shaft sunk to the depth of 30 fms., when such was the favourable character of the lode in the eastern ground that dividends were declared, but below that level the value of the lode fell off, and to the present depth has not resumed its former value. The present discovery is in a south lode, as it is called, dipping into the sett, and which is intersected by a cross-course, through which they have just cut, and found the lode productive; if this lode holds good the return will prove remunerative for some time to come, as the ground is white to surface.

ROSEWARNE AND HERLAND.—The Bowling Green shaft is sunk 4 fms. below the 10 fm. level; lode much the same as last reported. A winze sinking below the 15 fm. level, east of engine-shaft, is opening good ground, worth 25t. per fm. The salt end, driving west of the Old Herland cross-cut, is getting into the elvan course, and improving very fast; this is driving in whole ground, and seems to be of importance.

TREVISA MINING COMPANY.—A few weeks ago attention was directed to this mine, which was then being brought forward under most favourable auspices. The property is situated near St. Endor, within a mile of the celebrated East Wheal Rose, and was lately worked by the Penrice Consols Company; who, having expended more than 30,000t., got into difficulties, and the sets had to be sold. The whole of the plant, machinery, and leases were purchased by the new company for about 1000t. The Trevisa Company consists of 5000 shares of 1s. each, on which a deposit of 5s. a share has been paid. The company was formed within a few days of its being known, and, as might be expected, the shares were in great demand, and came out at a handsome premium. The directors, who seem to understand their business, having become possessed of a property costing over 30,000t. for 1000t., immediately acted under the advice of Captains C. Thomas, Pope, and H. B. Gross, and abandoned the working of the eastern part of the sets; setting all efforts in operation to explore the western lodes. They have met with the most complete success, and have fully realised the words of Captain C. Thomas, "that the western part of the mine would be a good mining speculation." The company have now near 60 work people employed on tutwork, tribute, dressing, &c., and raised 64 tons of metal last month, which will produce 252t. Capt. Gross reported on Oct. 22, that he had on that day cut the lode in the 6 fathom level, and that it was looking well, and saving work for blends and lead; that the lode in the 20 fathom level was a strong and kindly lode; that the lode in the winze sinking below the 35 fm. level was worth 8 tons of blends per fathom, the lode going down perpendicular, and looking kindly to improve; and that the lode in the 35 had improved to 200t. per fathom. The mine seems to be a very likely one, and we understand that the directors have the fullest confidence in bringing the share to the Dividend List within a few months.

WHEAL EMILY.—Capt. D. Stickland reports that an improvement has taken place in driving the 32 east, which will produce 10cwt. of silver-lead per fathom. In the other parts of the mine no alteration since last week.

ROSEWALL HILL AND RANSOM UNITED.—This mine has for a considerable period taken rank amongst the soundest of the progressive mines, and from the steady and gradual development of the lode in the deeper parts cannot but before long be in a profitable state. Every effort has been made by the present proprietors to render the whole of the underground and surface workings of the most substantial character, they having a firm belief that when the Rosewall Hill shaft was cleared to the bottom, and the lode fully opened on at that point, it would prove of such a character as to fully remunerate them for the outlay. They have steam-power sufficient for all purposes, consisting of a 40-inch pumping-engine, with flat-rods attached. A stamping-engine, with 22 heads of stamps, whim, railway, &c., completed from shafts to stamps, all laid out in the most economical manner, but at the same time most effectual for the future working. Both the shafts are now in fork to the bottom; the sinking at Rosewall Hill is being carried on a fine course of tin, which the agent in his report this week describes as a "splendid lode." Good results are also anticipated from the carious (the first, we believe, that has been discovered in this rich tin district); these points, combined with the beautiful stratum of ground, which is very easy for working, fully warrant the belief that ere long the returns will be greatly increased, and a lasting dividend mine reward the adventurers for the patient displayed.

WHEAL VVYVAN (Constantine).—All hope has been abandoned by the mining population here of seeing this mine re-worked by the present holders of the grant. As stated in the *Mining Journal* some three months since, the dressing of the leavings and burrows will certainly constitute the extent of their operations, and this opinion would seem to be corroborated, inasmuch as there has not been the slightest attempt made to commence the underground works, and also by the recent removal of some of the bob-pit quoins and other stones—and which would have been suitable for similar work should the mine be set afire at any future period—to build a garden wall at the residence of one of the parties interested. This party, who had a grant of the sett, on representing to the lord that several Constantine miners could not obtain employment in any of the neighbouring mines, but would gladly return Wheal Vyvyan—a statement which was very erroneous, as for a long time there has been a scarcity of miners in nearly all the West Country Mines—eventually succeeded in inducing a couple of pairs, of four men, to settle them at intervals for about two months, and when they sold their ore, a tribute for their working in the mine was retained and kept by him from the proceeds. And there is still the same personal benefits looked to, seeing that this party has his horses and cart almost daily engaged in carrying the burrows to the stamps; he

lets a public-house in the village to the tin-dresser, and this tin-dresser's mother keeps a shop in the church town, where the tin-dressing pare are expected to have their provisions; and Capt. Billie owes his hitherto quiet inheritance of office to his boarding, &c., at the public-house, and leaving with "mine host," the tin-dresser, pretty much of his salary monthly. Sir R. Vyvyan, the lord of the mine, has undoubtedly throughout this working expected that a benefit would be conferred generally on the inhabitants by allowing these parties to continue the dressing of the leavings, &c., but from this account of the proceedings, and which cannot be controverted, it will be manifest that their past and present management has been, and still is, with a view to the brewer and his tenant's advantage alone.—WILLIAM COLLINS (Constantine): Nov. 5.

CROOKHAVEN.—Capt. Henry Thomas, the former agent, has been appointed manager at those valuable mines, and the works will commence on Monday.

HUCKWORTHY BRIDGE MINE. has been inspected by Capt. Williams, of which Friendship, who recommends the cross-cutting through the lode at the 15 fathom level, which has been done; the lode already seen is 9 ft. wide, producing saving work, and a branch of exceedingly rich ore, scarcely to be exceeded for quality in the two countries. Specimens can be seen at Capt. T. Rosemane's office, 81, Old Broad-street.

DUNDALK MINE.—The prospects appear highly encouraging: 10 tons of lead ore were sold on the 24th ult., and a parcel of 16 tons is being dressed for this month. The lode at the 23 fm. level is expected to be intersected daily.

GREAT CRINNIS.—The lode is still good in the new engine-shaft, and worth full 3 tons of good ore per fm. The lode in the winze sinking below the 80, west of the shaft, is producing good ore, worth 1½ ton per fm., and improving as we sink. The 80 ft. has been disordered by a cross-course, but from the appearance of the lode there will soon be improvement. The mines and works are in excellent working order.

TRETOIL AND MESMER MINES. have much improved during the past week. The 24 end, on Mine Park lode, has reached the junction with Treteig's lode, where good ore is being raised. A level will be extended east on Treteig's lode, the deep adit will soon reach this junction, and the lode in this end is improving very much. The water will soon be drained to the 50, Michell's shaft, where there is a good lode, producing 2½ tons of rich ore to the fm. The waters nearly drained to the 40, at Russell's, when the Hill Park copper lode will be cut; it was productive in the adit level, and it is expected that a large quantity of ore ground will be opened out at this point. The lode will be cut in a short time at the 20, when returns of ore will be made.

ANGLICAN SMELTING COMPANY.—We understand that the Anglican Company's Lead Smelting Works, at Neston, in Cheshire, are in full operation, and that a bill of lading of a cargo of foreign auriferous ores has been received, and the vessel is expected to arrive in this country very shortly. From the reduction of this cargo considerable results are anticipated.

WEEKLY LIST OF NEW PATENTS.

GRANTS OF PROVISIONAL PROTECTION FOR SIX MONTHS.—W. FROST, Dorset-place, Dorset-square: Apparatus employed in the production of light.—G. PRICE, Wolverhampton: Improvements in locks.—J. VANZER, Radcliffe, J. CROWTHER, Bradford: Steam-engines and boilers.—G. GOLDSMITH, Leicester: Gas meters.—H. CHAPMAN, Battlebridge Appley: Improved self-acting safety railway break.—J. FERNIE-HOUGH, Dukinfield: Construction of steam-boilers and apparatus connected therewith.—J. ELDER, Glasgow: Steam and other engines.—P. A. GODFROY, Kings Mead Cottages, New North-road, Islington: Construction of submarine cables.—J. MUSGRAVE, Boston-le-Moors: Steam-boilers.—J. H. GREEN, Christiansburg, U.S.: A composition for coating metals and other substances for various purposes.—J. A. K. EATON, New York: Improved mode of converting cast-iron into soft malleable iron without change of form.

EXTRACTING GOLD AND SILVER FROM THEIR ORES.—Mr. Lewis Solo has provisionally specified an improved process of extracting the precious metals from their ores. The ore is broken fine and passed through a sieve, after which chloride of sodium (common salt) is added, and thoroughly incorporated with the ore; the mixture is roasted at a dull red heat, so as to avoid the volatilisation of the precious metals. The ore is next ground with the admixture of wood ash and boiled lime. The mass is placed in the amalgamator, and water is added until it is reduced to a consistency suitable to cause the mercury to separate into globules, and filter through it instead of passing through a body of soda ash is also added to cleanse the mercury and minute metallic particles of all earthy and greasy substances. Pieces of bar-iron are added to facilitate the titration, and decompose any chloride of silver that may have been formed during the previous operations, and sulphate of iron to decompose any chloride of gold. The amalgam being obtained, the precious metals are separated as usual.

LIBOTTE'S MINE BREAK.—Hitherto in mine winding-machinery the break-wheel or pulley has been stopped by applying pressure on the periphery. Mr. Libotte, however, in his patent just specified, proposes to act on the wheel by applying pressure or friction against its sides or lateral surfaces. In the preferred arrangement this pressure is exerted by bars moved by jointed links connected to the piston-rod of a steam-engine. These bars have projections on their inner surfaces, which take into recesses in the wheel when brought up against it, and thus lateral friction pressure is obtained.

RE-HEATING STEEL.—Mr. P. G. Gardiner, of New York, provisionally specified an improved furnace, the general shape of which is rectangular; the walls are continued above the body of the stack. By the arrangement of the ovens into two parts, he has the advantage of a constant supply of properly heated metal.

INCREASING THE STRENGTH OF METALS.—Mr. W. Haggert, Sherborne, proposes to roll, press, or cast iron with undulated surfaces. The corrugations are made to cross each other at right angles, or diagonally, as may be most advantageous for the purpose to which the prepared article is to be applied.

UTILISATION OF CHAPAFOTE.—Messrs. Moissant and Co., Havana, propose to apply "chapafote" to the manufacture of bituminous mastics and cements. When an elastic mastic is desired, they combine—Chapafote, 30 parts; resin or other oil, 10 parts; and inert matters, 60 parts: for a resisting quality—chapafote, 35 parts; oil, 5 parts; and inert matters, 60 parts: and for hard—chapafote, 40 parts; inert matters, 60 parts. About half part of a ton waste old rope, or similar fibrous material, may be added to the inert ingredients to obtain an elastic mastic. They also propose to obtain from chapafote illuminating gas, lubricating oils, and candles.

DIED.—On Oct. 29, aged 44 years, Mr. John Thomas Crowe, for many years connected with the *Mining Journal*, and formerly manager of the Alten Copper Works, in Norway. As a practical man he had had much experience in various parts of Europe, and his paper upon Copper Smelting, published in the *Mining Journal* of July 12, 1845, has been pronounced one of the best treatises upon the subject, and has been frequently reprinted, both in Europe and America, by journals desirous of giving reliable information upon the copper trade.

TO MINING AND ALL PUBLIC COMPANIES, EITHER UNDER THE LIMITED LIABILITY ACT, OR OTHERWISE.—Mr. H. WYNNDHAM PETTIS, 77, BASINGHALL STREET, LONDON, ACCOUNTANT AND AUDITOR OF 13 years' standing, OFFERS HIS SERVICES as auditor to any company requiring such aid. Mr. PETTIS pledges himself to make an unbiased, honourable, and faithful audit (and report if necessary), so that the shareholders may be able to ascertain clearly the correct position of their undertaking, and will, if desired, leave the question of his remuneration to be determined by the shareholders or directors after the audit and general meeting.

WATER-WHEEL FOR SALE AT WHEAL MARSHALL, ST. CLEER, CORNWALL.—Dimensions, 30 ft. diameter by 7½ ft. breast, with cast-iron rings, sockets, centre pieces, axle, and bearings; top blocks, saddles, and braces complete. The wheel cost £150. For further particulars, or to inspect the same, apply to Capt. DUNSTAN, Liskeard.

NEW INVENTION FOR MINING PURPOSES.—The patentee of an invention of great practical utility in MINING OPERATIONS, simple in construction and capable of effecting a considerable saving in bringing the produce of the mine to market, is DESIROUS OF FINDING A LONDON GENTLEMAN OF CAPITAL TO ENTER INTO PARTNERSHIP with him for the development of the invention.—Address, "S. D." *Mining Journal* office, 26, Fleet-street, London, E.C.

WANTED, AN UNDERGROUND MINE AGENT, FOR TRENCROM MINE, IN LELANT.—Applications, with testimonials, to be sent to Capt. THOMAS RICHARDS, Camborne, before the 14th November.

WANTED by the ADVERTISER, who has had 21 years' experience in the iron trades of South Wales and England, AN APPOINTMENT at home or abroad. He has the general management of an ironworks company (under the Limited Liability Act), and with which are connected rivet shops, fitting shops, and foundry, for the last 18 months, and for several years managed a department in one of the largest contractors' and engineering establishments in England. Is a competent book-keeper, accountant, and correspondent, and can give security for £1000. References and testimonials over 20 years.—Address, "Alpha," Post-office, Ulverston.

WANTED, SECOND HAND CAST IRON PUMPS. Also, 9 in. CAST IRON PUMPS, PLUNGER OR DRAWING PUMPS.—Apply, stating price, to the SOUTH POOL SLATE QUARRY COMPANY, Ffynone Creek, near Kingbridge, Devon.

WHARF.—TO BE LET, OR THE LEASE TO BE SOLD.—An EXTENSIVE WHARF, situate on the RIVER USK, at NEWPORT, MONMOUTHSHIRE, near the docks, having a river frontage of above 300 ft., and an area of about 6000 yards, with jetties for shipping, dwelling house, warehouses, granaries, and stables. The roads are laid with edge rails, communicating with the Western Railways and Monmouthshire Railways, and thus with the whole narrow gauge system of railways in the kingdom.—Application to be made to Mr. ROBERT DUNCAN, Eastgate Dock, Cardiff.

CROOKHAVEN MINING COMPANY (LIMITED).—NOTICE.—THE SUBSCRIPTION LIST FOR SHARES in this company WILL BE CLOSED after the 8th inst. By order, FREDK. S. HEMMING, Secy.

THE BOG LEAD MINING COMPANY.—I beg to state, in reply to numerous enquiries at this office, that the company referred to in the last impression of the *Mining Journal*, as being wound-up under Mr. Commissioner Holroyd, is in no way connected with the above company.

THOS. FULLER, Secy.

PELYN WOOD MINE.—NOTICE IS HEREBY GIVEN, that Mr. THOMAS FULLER, of 51, THREADNEEDLE STREET, LONDON, is APPOINTED SECRETARY of this mine, to whom all communications and transfers for registration are to be forwarded.—November 4, 1859.

Nearly ready, price One Guinea to subscribers,
SECTIONS OF THE MOUNTAIN LIMESTONE, SWALEDALE, YORKSHIRE, showing Forty Dislocations or Veins of Lead Ore, varying in Throats from One to Forty Fathoms, with the most Productive and Unproductive portions of each Vein.

THE FESTINIOG SLATE QUARRY COMPANY (LIMITED).

Capital £100,000, in 20,000 shares of £5 each, of two classes, viz.:—A participating in the entire profits after paying off dividend to B, B bearing a preference dividend not exceeding 7½ per cent. per annum, payable out of the profits of the year. Deposit £1. per share on application, and 1½d. per share on allotment.

DIRECTORS.
DAVID DAVIES, Esq., St. James's Mount, Liverpool.
ALFRED ERASMIUS DRYDEN, Esq., Lincoln's Inn, London.
RICHARD MORRIS GRIFFITH, Esq., Banker, Bangor.
WILLIAM MOUNTCASTLE, Esq., Market-street, Manchester.
HUGH PUGH, Esq., Banker, Pwllheli, North Wales.

BANKERS—The London Joint-Stock Bank, London; the National Provincial Bank of England, Bangor.

The quarries of the company are situated on the Tyddynbychan estate, Festiniog, North Wales, contiguous to the extensive and profitable quarries of Lord Palmerston and others, whose production is known as the Portmadrone slate. The Tyddynbychan estate contains 360 acres of proved slate rock of excellent quality, and the dip is most favourable for economic working, affording natural drainage, a plentiful supply of water power, and ample room for deposit of waste.

The property is held by the company under a 42 years lease, granted in 1848 to the former small proprietor, at a low royalty, with an option to purchase the fee-simple. This lease and option, with the whole of their quarries, buildings, works, and plant, have been purchased from the former proprietors by an allotment of 7514 shares in the present company, taken at £4 per share paid.

The quarries have been in operation since 1848, and the quality of the slate and slabs produced, the reports (based upon scientific surveys of the whole estate), and experimental tests applied at different points (see prospectus), fully establish the soundness of the undertaking and the certainty of a large dividend resulting from further outlay of capital.

It is estimated that a further capital of from £30,000 to £40,000 will enable the company to purchase the fee-simple; to construct a tram road three miles in length, connecting the quarries with the port of shipment (Portmadrone), whereby the cost of transit will be reduced two-thirds; and to increase the workings up to a production of 50,000 tons per annum, from which it is estimated a profit of from 30 to 40 per cent. would be realized.

So soon as the subscribed capital reaches the estimated sum required, all further allocations will cease.

Application for shares must be made to the undersigned, from whom proper forms and prospectuses may be obtained.

Offices, 6, Cannon-street, London, E.C. HENRY WHITWORTH, Sec.

GENERAL PATENT COMPANY (LIMITED). Established for the purpose of aiding inventors and patentees in patenting, completing, and developing their inventions.

PATENTS.
WILLIAM FAIRBAIRN, Esq., C.E., F.R.S., F.G.S.
F. S. POWELL, Esq., Horton Hall, Bradford.

The operations of this company comprise every description of business connected with patents and inventions. Inventions patented and designs registered at most moderate charges. Inventions disposed of or commissioned. A prospectus, containing full particulars, together with a monthly list of the patents, &c., now on the company's books for sale, may be had on application to ROBERT M. LATHAM, secretary.

Inventorial applications for agencies in unrepresented districts will be entertained, and liberal terms accorded.

Offices, 71, Fleet-street, E.C.

INVENTORS' ASSISTANCE COMPANY (LIMITED). Capital £25,000, in shares of £1 each (with power to increase it to £100,000).

Deposits £1. per share.

Incorporated under Joint Stock Companies Acts, 1856–57–58.

Under the direction of a Council and Managing Committee appointed by the shareholders.

BANKERS—Ransom, Bouvier, and Co., Pall Mall East.

SOLICITORS—Grane, Son, and Fossomber, 23, Bedford-row, W.C.

SECRETARY—Situwell Harris.

OFFICES AND MANUFACTORY.

Nos. 1, 2, and 3, GOUGH STREET NORTH, GRAY'S INN ROAD, W.C.

ABRIDGED PROSPECTUS.

The leading feature of this company is, that it investigates the merit of any invention submitted to it by the aid of scientific and practical men, selected with special regard to their qualifications as impartial judges. Such inventions as are approved are patented or registered, and manufactured by the company, for sale, on a scale sufficient to establish their value, without cost to the inventor, who will share, under agreement, in all profits arising therefrom.

As an earnest of these intentions, the managing committee have secured a long lease, on most advantageous terms, of extensive premises, containing a spacious manufacture, provided with suitable plant, where models can be made and tried, and patented articles manufactured for sale.

Valuable patents already arranged for are now being so manufactured, at a nett profit of 300 per cent.; while several very promising inventions are under consideration.

The advantages thus enumerated justify the directors in recommending the undertaking to the notice of small capitalists, as an investment well worthy their special consideration.

That the large mass of inventors are unable to carry out their designs is a fact patent to most practical observers. It is equally true that a great number of cases only require the judgment and kindly assistance of scientific and practical men to render them productive of immense public benefit. It is incontrovertible that our national importance and wealth have been more promoted by inventors than by any other class of men. Arkwright, Watt, Cort, Stephenson, and other names scarcely less eminent, have produced an amount of wealth almost beyond calculation, though their inventions were received at first with coldness and incredulity. In short, all the improvements for our convenience and comfort, dating from a state of barbarity to one of high civilisation, are but the cumulative results of inventive ingenuity.

It must not be overlooked by the shareholder that a patent gives an exclusive trade with the customers of the world, and that this company will possess in no common degree such advantages as will, on the average, be immensely productive, and ensure a dividend that may surprise, and must satisfy all investors.

Applications for shares, and full prospectuses giving the fullest information, to be made, personally or by letter, to the secretary, at the offices, as above.

On Saturday next, November 12, price 5d.

THE SHAREHOLDER. Devoted to the Guidance and Protection of Investors.

In the first number will be commenced the AUTOBIOGRAPHY OF THE OLD LADY IN THREADNEEDLE-STREET, expressly written for "The Shareholder." Subscription:—Three months, 6s. 6d.; six months, 13s. Orders payable to GEORGE MADDICK, 1, Crane-court, Fleet-street.

INVESTMENTS IN BRITISH MINES.

Full particulars of the most important Dividend and Progressive Mines will be found in the Fourth Edition of

BRITISH MINES CONSIDERED AS AN INVESTMENT, Recently published, by J. H. MURCHISON, F.G.S., F.R.S.

Price 35s.; price 3s. 6d., by post, 4s.

Mr. Murchison also publishes a QUARTERLY REVIEW OF BRITISH MINING, giving, at the same time, the Position and Prospects of the Mines at the end of each quarter, the Dividends Paid, &c.; price 1s. Reliable information and advice will at any time be given by Mr. Murchison, either personally or by letter, at his offices, No. 117, Bishopsgate-street Within, London, where copies of the above publications can be obtained.

OPINIONS OF THE PRESS.

Mr. Murchison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments.—*Mining Journal*.

The book will be found extremely valuable.—*Observer*.

A valuable little book.—*Globe*.

A valuable guide to investors.—*Herald*.

Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines.—*Morning Herald*.

Of special interest to persons having capital employed, or who may be desirous of investing in mines.—*Morning Chronicle*.

Parties requiring information on mining investments will find no better and safer instructor than Mr. Murchison.—*Leeds Times*.

As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats.—*Derby Telegraph*.

To those who wish to invest capital in British Mines, this work is of the first importance.—*Welsman*.

This work enables the capitalist to invest on sound principles; it is, in truth, an excellent guide.—*Plymouth Journal*.

Persons desirous to invest their capital in mining speculations, will find this work a very useful guide.—*Warwick Advertiser*.

It is full of carefully compiled and reliable information relative to all the known mines in the United Kingdom.—*Sheffield Free Press*.

Those interested in mining affairs, or who are desirous of becoming speculators, should obtain and carefully peruse the work.—*Monmouth Beacon*.

Every person connected, or who thinks of connecting himself, with mining speculations should possess himself of this book.—*North Wales Chronicle*.

A very valuable book.—*Cornwall Gazette*.

All who have invested, or intend to invest, in mines should peruse this able work.

We believe a more useful publication, or one more to be depended on, cannot be found.

—*Plymouth Herald*.

With such a work in print, it would be gross neglect in an investor not to consult it before laying out his capital.—*Postle Herald*.

Mr. Murchison will be a safe and trustworthy guide, so far as British Mines are concerned.—*Both Express*.

Is deserving the attention of every one who seeks profitable investment of his capital.—*Brighton Examiner*.

This is really a practical work for the capitalist.—*Stockport Advertiser*.

All who have invested, or intend to invest, in mines, would do well to consult this very useful work.— *Ipswich Express*.

To capitalists the work will prove very serviceable.—*Birmingham Mercury*.

Of great value to capitalists.—*Sunderland Times*.

PRACTICAL MECHANIC'S JOURNAL (Part 140, for November 1859, Price 1s.), illustrated with a highly-finished engraving, folio size, of Messrs. Richardson and Jaffrey's Harbour of Refuge, and 50 woodcuts, contains Original Articles on the Improved Harbours of Refuge, History of the Sewing Machine (Art. 20), New Barometer, Needle Pointing Machine, the St. Lawrence Bridge, Draw Spring for Tow Lines, Brazilian Patent Law, New Plastic Alloy.—Recent Patents: Brecknall, Valves; White, Raising Ships; Hunt, Boilers; Johnson, Axle Boxes; Bettis, Capsules; Johnson, Steel; Carter, Heating; McNab, Telegraphs; Jones, Furnaces; McConnel, Boilers; Sonnenfeld, Horne Stone.—Patent Laws: Kcox v. Paterson.—Registered Designs: Tillet's Bedstead Nut, Wilkinson's Churn. Reviews of New Works, Correspondence, Proceedings of the British Association, Scientific Societies, American Photographic Society, Marine Memoranda, Monthly Notes, Pottinger's Jury Rucker, the late Mr. Stephenian, the Deane-Harding Revolver, the Canadian Trunk Line, Tindall's Fountains, Association of Foremen Engineers, Lists of Patents, Desires Reserved.—London: Longman's, Paternoster-row; Editor's Office (Offices for Patents), 47, Lincoln's Inn-fields.

East India House.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL. NOTICE IS HEREBY GIVEN, that the FINANCE, HOME, AND PUBLIC WORKS COMMITTEE will be READY, on or before TUESDAY, the 4th November, 1859, at Eleven o'clock in the forenoon, to RECEIVE TENDERS, sealed up, from such persons as may be willing to SUPPLY THREE THOUSAND TONS OF COAL for steam navigation, of any of the undesignated sorts, to be delivered at Bombay, viz.:—Glasgow Hard Split, Laird's Welsh Hartley Steam, Brymbo, Coal Tatton, Bassell's New Black Vein, Blaenau Black Vein, or Merthyr Steam (from the 4 feet seam of the Aberdare Valley) Coals.

The tenders are to be made according to a form which may be had upon application at the Marine and Transport Department in the India Office, with conditions annexed, and they are to be left at the secretarial office at any time before Eleven o'clock in the forenoon of the 8th November, 1859, aforesaid, after which hour no tender will be received.

India Office, November 1, 1859.

East India House.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL. NOTICE IS HEREBY GIVEN, that the FINANCE, HOME, AND PUBLIC WORKS COMMITTEE will be READY, on or before THURSDAY, the 16th November, 1859, at Eleven o'clock in the forenoon, to RECEIVE TENDERS, sealed up, from such persons as may be willing to SUPPLY TWO THOUSAND TONS OF COAL for steam navigation, of any of the undesignated sorts, to be delivered at Bombay, viz.:—West Hartley, Carr's Hartley, Budd's Hartley, Davison's West Hartley, Longridge's West Hartley, Byass's Beside West Hartley, Ravensworth West Hartley, Jonasson's Hartley, Hastings' Hartley, Stewart's Wall's End Steam, Hartley West Hartley, or Samuseon's Real Old Gawber (Oaks Colliery) Hard Steam Coals.

The tenders are to be made according to a form which may be had upon application at the Marine and Transport Department in the India Office, with conditions annexed, and they are to be left at the secretarial office at any time before Eleven o'clock in the forenoon of the 10th November, 1859, aforesaid, after which hour no tender will be received.

India Office, November 1, 1859.

East India House.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL. NOTICE IS HEREBY GIVEN, that the FINANCE, HOME, AND PUBLIC WORKS COMMITTEE will be READY, on or before TUESDAY, the 15th November, 1859, at Eleven o'clock in the forenoon, to RECEIVE TENDERS, sealed up, from such persons as may be willing to SUPPLY THREE THOUSAND TONS OF COAL for steam navigation, of any of the undesignated sorts, to be delivered at Bombay, viz.:—West Hartley, Carr's Hartley, Budd's Hartley, Davison's West Hartley, Jonasson's Hartley, Hastings' Hartley, Stewart's Wall's End Steam, Hartley West Hartley, or Samuseon's Real Old Gawber (Oaks Colliery) Hard Steam Coals.

The tenders are to be made according to a form which may be had upon application at the Marine and Transport Department in the India Office, with conditions annexed, and they are to be left at the secretarial office at any time before Eleven o'clock in the forenoon of the 13th November, 1859, aforesaid, after which hour no tender will be received.

India Office, November 1, 1859.

East India House.

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The tenders are to be made according to a form which may be had upon application at

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO.
MIDLAND WORKS, BIRMINGHAM.
BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS.
IN STOCK—FOR SALE OR HIRE.

THE RAILWAY CARRIAGE COMPANY,
OLD BURY, NEAR BIRMINGHAM.
MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND
IRONWORK.
NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK
FOR SALE OR HIRE.
LONDON OFFICES, 34, GREAT GEORGE STREET, WESTMINSTER.

THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS
RAILWAY WAGONS FOR HIRE.
Apply to the SECRETARY, 3, Newhall-street, Birmingham.

SPRING HILL METAL, TUBE, AND ROLLING MILLS,
EYRE STREET, BIRMINGHAM.
GLYDON and SHORTHOUSE, MANUFACTURERS OF BRASS and COPPER,
LOCOMOTIVE, MARINE, GAS, BELL, and OTHER TUBES. ROLLED METALS,
BRASS SHEETS, BRASS and COPPER WIRE, COPPER BOAT NAILS, RIVETS,
WASHERS, &c., &c. GERMAN SILVER SHEETS, WIRE, &c., &c. ROLLED
STEEL for CRINOLINE, PENS, SPRINGS, &c., &c. GENERAL ENGINEERS.

SCHORTRIDGE, HOWELL, AND CO., HARTFORD STEEL
WORKS, SHEFFIELD, SOLE MANUFACTURERS OF HOWELL'S PATENT
HOMOGENEOUS METAL PLATES for BOILERS, LOCOMOTIVE FIRE BOXES,
and TUBES, COMBINING THE STRENGTH of STEEL with the MALLEABILITY
of COPPER. RUSSELL and HOWELL'S PATENT CAST STEEL TUBES.
MCNELL'S PATENT HOLLOW RAILWAY AXLES.—For prices and terms, apply to
SCHORTRIDGE, HOWELL, and CO., Hartford Steel Works, Sheffield; or Messrs.
HARVEY and CO., 12, Haymarket, London.

BESSEMER STEEL.—REFINED CAST-STEEL
manufactured by the Bessemer process, and of a quality fully equal to the best
steel in use, suitable for tools, cutters, boiler plate, shafting, piston-rods, doctors,
spindles, trusses, welding purposes, mining tools, cutlery, fire-arms, crinolines, &c.,
can now be had in any quantity, at prices much lower than any other steel. A stock is
kept, and specimens of the manufacture may be inspected, and samples and price lists
obtained, at the Bessemer Steel Warehouse, 71, Cannon-street West, E.C.

FARRAR'S PATENT FOR MAKING STEEL IN THREE
HOURS IN THE CRUCIBLE, WITHOUT CEMENTATION.
For LICENSES to USE process and further particulars, apply to THOMAS VAUGHAN
MOSSE, Battersea Works, London, S.W.

REFINED CAST STEEL for TURNING TOOLS, CHISELS,
DRILLS, and PUNCHES of every description, TAPS and DIES, &c., of the
best quality, at PAGE and CAMERON'S, LAURENCE POUNTNEY PLACE,
LAURENCE POUNTNEY PLACE, CANNON STREET, LONDON, E.C.

CALVERT'S PATENT PROCESS FOR MAKING COKE AND
IRON FREE FROM SULPHUR.
For LICENSES to USE the above process, apply to ROBERT LONGDON, Jun., 63, King-
Street, Manchester.

HEMATITE PIG IRON.—THE UNDERSIGNED CONTINUE
the SALE of the ORIGINAL HEMATITE PIG, now BRANDED HEMATITE
ELATOR, which is made entirely from the rich hematite ores peculiar to the neighbour-
hood of Whitehaven (the shipping port), without a particle of cinder, leaner ores, or
slag. It is especially adapted for the manufacture of castings, where great strength
is required, and is largely and regularly used in almost all the best shops of tin-platers.
WILLIAM F. SIM AND CO., 19, SWEETING STREET, LIVERPOOL.

PONKEY GREY FOUNDRY PIG IRON.—THE PROPRIETOR
of this noted iron is now PREPARED to SUPPLY it in ANY QUANTITIES.
This iron has been well known for the last 50 years, and has been proved to be superior to any made for softness, toughness, and strength.
(See Mr. Fairbairn's report in the Engineers' Pocket Book.)—JOSEPH JUKES, Ponkey Iron-
works, Rhondda, North Wales.

JOHN ROGERSON AND CO., NEWCASTLE-ON-TYNE, AND
MIDDLESBOROUGH-ON-TEES, IRON SHIP and STEAM-BOAT BUILDERS,
TANKS, BOILERS, BARGES, BRIDGES, DERWENT RAHS, PIG and REFINED
IRON, BALES, BOLTS, ANCHORS, and CHAINS. STEAM, GAS, and COOKING
GAS, COKE, &c.

CONDIE'S PATENT STEAM HAMMERS.—
FIRST-CLASS STEAM HAMMERS, from 5 cwt. to 7 tons, suitable for jobbing
forges, puddling forges, and the smiths' shops of engineers, ship-builders, wagon-builders,
navy companies, &c. Pressure of steam required, 25 lbs.

JOHN CONDIE.

SUPERIOR FRENCH PINE SLEEPERS—TO RAILWAY
COMPANIES, ENGINEERS, CONTRACTORS, COLLIERY OWNERS, TIM-
BER MERCHANTS, &c.—The undersigned have ALWAYS ON HAND, FOR SALE,
A LARGE ASSORTMENT OF SUPERIOR FRENCH PINE SLEEPERS, which they
import regularly by their line of steamers, from BORDEAUX to Liverpool,
W. H. DAUNT AND CO., COOK STREET, LIVERPOOL.

HEAT GUAGE, OR PYROMETER,
FOR HIGH TEMPERATURES.
This gauge is extensively used for heating stoves of blast furnaces, boiler flues, locomotive smoke boxes, superheated steam, &c.
Patentee: W. H. Gauntlett, Southbank, Middlesex-on-Tees.
London: E. Samuelson, 76, Cannon-street West.

TO COLLIER PROPRIETORS.—PATENT TIPPING
MACHINES, TO DIMINISH THE LOSS FROM BREAKAGE IN LOADING
COAL ON RAILWAY WAGONS, SHIPS, &c.
ARTHUR AND JAMES RIGG, PROPRIETORS AND MAKERS,
GEORGE STREET, CHESTER.

TO COLLIER PROPRIETORS.—TO PREVENT
EXPLOSIONS BY MINERS TAMPERING WITH SAFETY-LAMPS, USE
ROBINSON'S AND OGDEN'S PATENT SELF-LOCKING LAMP, possessing the
following advantages:—

1. THE GAUZE CANNOT BE REMOVED, except by the application of a fixed machine key.
2. SIMPLICITY OF LOCKING.
3. THE APPLICATION OF AN ENAMELLED REFLECTOR.

Further particulars will be forwarded on application to THOMAS ROBINSON and Co.,
Manufacturers, Manchester; or to HETH OGDEN, engineer, Manchester.

TO PREVENT ACCIDENTS by WINDING OVER the HEAD
GEAR, USE THE PATENT SELF-ACTING STEAM BREAK, which at every
lift from the mine shuts off the steam from the winding engine and applies the break;
also records the number of lifts made.—For illustrated circular and price, apply to
ARTHUR OUDEN, engineer, St. Mary's, Manchester.

TO ENGINEERS, CONTRACTORS, MINERS, EXPORTERS,
AND OTHERS.—MESSRS. PAGE AND CAMERON beg to call attention to
their HIGH PRESSURE HORIZONTAL STEAM ENGINES, from 6 to 30 horse power
and upwards. They are of superior manufacture and finish, most substantially built,
and PARTICULARLY ADAPTED FOR MINING PURPOSES. Messrs. PAGE and
CAMERON always have a stock on hand in London, and from the great facilities they pos-
sess for manufacturing they are enabled to execute orders on very short notice, as also to
offer their manufacturers unprecedented low prices. Price lists forwarded on applica-
tion.—OFFICE, 64, OLD BROAD STREET, LONDON, E.C.

HORIZONTAL HIGH PRESSURE STEAM ENGINES FOR
SALE, and ready for delivery:—

ONE of 8 horse power, 8 in. cylinder, and 18 in. stroke.
ONE of 8 horse power, 10 in. cylinder, and 18 in. stroke.
ONE of 10 horse power, 10 in. cylinder, and 24 in. stroke.
TWO of 12 horse power, 12 in. cylinder, and 24 in. stroke.
ONE of 14 horse power, 12 in. cylinder, and 36 in. stroke.
TWO of 14 horse power, 14 in. cylinder, and 24 in. stroke.
ONE of 16 horse power, 14 in. cylinder, and 36 in. stroke.
ONE of 24 horse power, 17 in. cylinder, and 36 in. stroke.
TWO of 30 horse power, 20 in. cylinder, and 36 in. stroke.

The above engines are quite new, of superior manufacture and finish, and very substan-
tially built.—Apply to PAGE and CAMERON, 64, Old Broad-street, London, E.C.

ENGINEERS' TOOLS FOR SALE—A SUPERIOR
SELF-ACTING and SCREW CUTTING LATHE, 7 in. centre and 7 ft. bed; a
lito. 7 in. centre, and 9 ft. bed. A PUNCHING and SHEARING MACHINE, for
1/2 in. plates, TWO ditto for 5/8 in. plates, and TWO ditto for 3/4 in. plates. VERTICAL
DRILLING MACHINE, pillar and bench drills. Haley's and other lifting jacks, rach-
ets, &c.—Apply to PAGE and CAMERON, 64, Old Broad-street, London, E.C.

BASTIER'S PATENT PUMP.
APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY
APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, &c.
J. V. BASTIER begs to call the attention of proprietors of mines, engineers, architects,
farmers, and the public in general, to his new pump, the cheapest and most efficient ever
introduced to public notice. The principle of this new pump is simple and effective, and
its action is so arranged that accidental breakage is impossible. It occupies less space
than any other kind of pump in use, does not interfere with the working of the shafts,
and unites lightness with a degree of durability almost imperishable. By means of this
hydraulic machine water can be raised economically from wells of any depth; it can be
worked either by steam-engine or any other motive power, by quick or slow motion.
The following statement presents some of the results obtained by this hydraulic machine,
as daily demonstrated by use:—

1. It utilises from 90 to 92 per cent. of the motive power.
2. Its price and expense of installation is 75 per cent. less than the usual pumps em-
ployed for mining purposes.
3. It occupies a very small space.
4. It raises water from any depth with the same facility and economy.
5. It raises with the water, and without the slightest injury to the apparatus, sand,
mud, wood, stone, and every object of a smaller diameter than its tube.

6. It is easily removed, and requires no cleaning or attention.
To be seen daily at W. P. Warner's, wine and spirit merchant, Welsh Harp, Edgware-
road, near Cricklewood. References of the highest character will be given.

J. V. BASTIER, sole manufacturer, will CONTRA/T to ERECT his PATENT PUMP
at HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will
GRANT LICENSES to manufacturers, mining proprietors, and others, for the USE
of his INVENTION.

OFFICES, 19, MANCHESTER BUILDINGS, WESTMINSTER, LONDON.
London, Oct. 10, 1859. Hours, from Ten till Four. J. V. BASTIER, C.E.

**THE REGULATING AIR DOORS INCREASE STEAM,
ECONOMISE FUEL, PREVENT SMOKE, and EFFECTUALLY VENTILATE
MARINE and OTHER ENGINE ROOMS.**

J. LEE STEVENS, PATENTEE, 1, FISH STREET HILL, E.C. 155

THE PENDULOUS FIRE BARS SAVE ABOVE FIFTY PER
CENT. IN ANNUAL OUTLAY by GREATER DURABILITY, MATERIALLY
PREVENT the ADHESION of CLINKERS, and IMPROVE COMBUSTION in ALL
FURNACES.

J. LEE STEVENS, PATENTEE, 1, FISH STREET HILL, E.C. 155

PENDULOUS FIRE BARS.—LETTERS of LICENSE are
GRANTED to GILKES, WILSON, and CO., MIDDLESBOROUGH, for North
Yorkshire and county of Durham, and to GERARD and MACINTOSH, ABERDEEN,
for the North of Scotland.—Applications for other districts to be made to TREZELLES and
TAYLOR, 64, Old Broad-street, London, E.C.; or to J. LEE STEVENS, the patentee, 1, Fish-
street-hill, E.C.

155

A USTRALIA AND NEW ZEALAND

WHITE STAR EX-ROYAL MAIL CLIPPERS,

SAILING FROM

LIVERPOOL to MELBOURNE on the 1st and 26th of every month,

and to NEW ZEALAND on the 10th or 25th.

Ship. For Register. Burthen. To sail.

BEIJAPORE Melbourne 1676 5000 Nov. 20.

BLUE JACKET Auckland and Wellington 1074 3200 Nov. 25.

RECHWORTH Melbourne 1266 4000 Dec. 1.

EMPIRE or PEACE Melbourne 1540 4600 Dec. 20.

155

The clippers of this line are the largest, finest, and handsomest in the trade, and are
well known for their famous passages, and the unwavering punctuality of their sailing
engagements. Passengers must embark, without fail, on the day previous to advertised
date.—For freight or passage apply to the owners, H. T. WILSON and CHAMBERS,
21, Water-street, Liverpool; or to GUNSLAY and CO., 63, Cornhill, London; or SEY-
MOUR, PEACOCK, and CO., 116, Fenchurch-street, London.

Willow's Australian and New Zealand hand-books sent for two stamps.

155

STEAM TO AUSTRALIA UNDER SIXTY DAYS.

PASSAGE MONEY £14 AND UPWARDS.

BLACK BALL LINE of BRITISH AND AUSTRALIAN

EX-ROYAL MAIL PACKETS and EAGLE LINE of PACKETS,

In conjunction with the celebrated auxiliary screw steam clipper

GREAT BRITAIN.

Appointed to sail punctually from LIVERPOOL on the

5th and 15th of every Month.

To the consignment of Bright Brothers and CO., Melbourne.

The above, in addition to being the only line with steamers out of Liverpool, is com-
posed of the LARGEST, FINEST, and FASTEST MERCHANT SHIPS in the WORLD.

Ship. Register. Burthen. Captain. Date.

EAGLE 1050 3500 MURPHY 15th November.

GERALD BRITAIN (s.s.) 1733 500 n.r. GRAY 5th December.

WANATA 1442 4000 MARSH 16th December.

To be succeeded by the following clippers and steamers

GREAT BRITAIN.

LIGHTNING.

CHAMPION OF THE SEAS.

DONALD MCKAY.

GREAT TASMANIA.

EAGLE.

SALDAHNA.

The above celebrated steam and sailing clippers, forming the only lines honoured

by a visit from Her Majesty the Queen, and so well known for their rapid passages, punctu-

larity in sailing, and splendid accommodation unsurpassed by any ships in the world,

will continue to sail regularly between Liverpool and Melbourne, thus affording to pas-
sengers and shippers the unequalled advantages. The commanders are men of ex-
perience, and noted for their kindness and attention to passengers.

The cabin accommodation is very superior, the saloons being elegantly furnished with
every requisite to ensure comfort to passengers, and are supplied with beds, bedding, &c.

Bounty ticket passengers forwarded to Launceston and Hobart Town.

Apply to GIBBS, BURTON, and CO., merchants, 1, North John-street, and JAMES BAINES
and CO., Tower-buildings, Liverpool; or to T. M. MACKAY and CO., 2, Moorgate-street,
London, E.C.

155

THE CELEBRATED INDIA-RUBBER STEAM PACKING IN ROPE, SHEET,
HINGS, &c., SUITABLE FOR STUFFING BOXES, FLANGE JOINTS, &c.

PATENTEE OF IMPROVED WATERPROOF FABRICS AND GARMENTS

Perfectly free from odour, and not affected by heat.

Portable Baths. Impermeable Sheetings for Hospitals.

Water and Air Beds. Camp and Ground Sheets.

Pillows and Cushions. Cart Covers.

Life Preservers. Gig and Omnibus Aprons.

Fishing Boots and Stockings. Waterproof Coats, Capes, Caps, and Leggings.

155

DONALD DUNCAN'S FINE SCOTCH MALT WHISKIES

are cheaper, more wholesome, and far superior to the finest French brandy.

ROYAL BALHORAL, a very fine mild and mellown spirit, 15s. per gallon.

THE PRINCE'S USQUEBAUGH, a much admired delicious spirit, 18s. per gallon.

DONALD DUNCAN'S CELEBRATED REGISTERED DD WHISKEY

of extraordinary quality and age, 20s. per gallon.

Two gallons and upwards of either of the above sent to any part, or sample forwarded
for twelve postage stamps. Terms, cash. Orders from the country must contain a Post-
office order.

THE MINING SHARE LIST.

DIVIDEND MINES.

Shares.	Mines.	Paid.	Nom. Pr.	Business.	Dividends Per Share.	Last Paid.
700 Aberdovey (silver-lead), Merioneth	mil.	321	4	4 4½	0 10 6.. 0 10 0	Mar. 1859
5130 Alfred Consol (cop.), Phillack [S.E.]	2 11 10..	41	4 4½	20 3 0.. 0 2 0	April, 1859	
10000 Bampfylde (copper), Devon	0 12 6..	4	0	0 7½ 0.. 0 7½	May, 1859	
4000 Bedford United (copper), Tavistock	2 8 8..	73	7½ 7½	10 18 6.. 0 3 0	May, 1859	
210 Bonscan (tin), St. Just	20 10 0..	50	0	23 0 1.. 0 1 0	Nov. 1858	
200 Botallack (tin, copper), St. Just	91 5 0..	169	0	41 15 0.. 2 10 0	Aug. 1859	
2000 Bodmin (lead), Cardiganshire [L.]	4 0..	7½	6½ 7	0 2 0.. 0 2 0	Oct. 1859	
10000 Braefield Mines (silver-lead), Durban	0 12 0..	85	80 85	253 10 0.. 2 0 0	Nov. 1859	
2000 Cefn Cwm Brynwy (lead), Cardiganshire	15 0 0..	15	20	5 0 0.. 2 0 0	Mar. 1859	
2500 Central Minera (lead) [L. E.]	0 5 0..	5½	5½ 5½	0 4 0.. 0 4 0	Sept. 1859	
250 Copper Hill (copper), Bedruth	48 0 0..	125	0	2 10 0.. 2 10 0	Sept. 1859	
12000 Copper Miners of England	25 0 0..	25	0	7½ per cent.	Half-yearly.	
25000 Ditto ditto (stock)	100 0 0..	24½	24½	0	1 per cent.	
1035 Cracklock Moor (copper), St. Cleer	8 0 0..	38	37 38	3 11 9.. 0 5 0	Sept. 1859	
847 Cwm Eryth (lead), Cardiganshire	7 0 0..	10	0	1 0 0.. 0 10 0	June, 1859	
128 Cwmystwyth (lead), Cardiganshire	60 0 0..	260	250	165 0.. 0 5 0	May, 1859	
280 Derwent Mines (silver-lead), Durham	300 0 0..	150	127	0 5 0.. 0 5 0	July, 1859	
4076 Devon and Cornwall (copper)	4 6 3..	8	0	0 10 0.. 0 2 0	Feb., 1859	
1024 Devon Gt. Cons. (cop.), Tavistock [S.E.]	425 430	677	0 7 0	0 9 0	Sept. 1859	
358 Dolcoath (copper, tin), Camborne	128 17 6..	310	251	9 0 0.. 0 9 0	Oct. 1859	
512 East Bassett (cop.), Redruth [S.E.]	25 10 0..	150	155	29 0.. 7 0 0	Sept. 1859	
300 East Darren (lead), Cardiganshire	32 0 0..	21½	62 0	0 2 0.. 0 2 0	Aug. 1859	
128 East Pool (tin, copper), Pool, Illogan	24 5 0..	240	305	0 0 0.. 2 10 0	Aug. 1859	
2048 East Welsh Lovell (tin), Wendron	2 10 0..	8½	0 5 0..	0 5 0	July, 1859	
5700 Exmouth (silver-lead), Christow	4 14 0..	8	3	3 17 6.. 0 2 0	Oct. 1859	
1400 Yeo Mining Co. (lead), Derbyshire	5 0 0..	28	18 13 4..	1 0 0	Aug. 1859	
2500 Foxdale, Isle of Man, Limited (lead)	25 0 0..	42	60 8 3..	1 0 0	Mar. 1859	
488 Grambler and St. Auhyn (exp.) [S.E.]	46 10 0..	69	60 62½	19 0.. 0 2 0	Sept. 1859	
6000 Great South Tolgus [S.E.], Redruth	15 6 0..	135	5 4 6..	0 10 0.. 0 10 0	Oct. 1859	
1024 Herodsott (id.), near Liskeard [S.E.]	8 10 0..	185	15 17	6 15 0.. 1 0 0	Oct. 1859	
5000 Kelly Bray (lead, copper), Callington	19 6 0..	32	31 34 3½	2 0 0.. 0 2 0	Aug. 1859	
160 Levant (copper, tin), St. Just	10 0 0..	140	1096	0 5 0.. 0 5 0	May, 1859	
4000 Liburn (lead), Cardiganshire, Wales	15 10 0..	107½	331	10 0.. 0 3 0	June, 1859	
5000 Mendip Hills (lead) [L.], Somerset	15 0 0..	13	18 16 1..	0 5 0.. 0 5 0	May, 1859	
18000 Minerina Co. (tin), Llwynypennant	25 0 0..	250	45 12 6..	4 10 0	Aug. 1859	
20000 Mining Co. of Ireland (cop., lead, coal)	7 0 0..	12½	12½	16 1 6.. 0 4 10	July, 1859	
470 Newtownards Mining Co., Co. Down	50 0 0..	35	56 0 0..	1 0 0	Sept. 1859	
4000 North Dolcoath (copper), Camborne	1 6 6..	5½	5 5½	5 0 0.. 0 2 0	June, 1859	
6000 N.W. Bassett (cop.), Illogan [S.E.]	5 0 0..	7	6½ 7½	14 12 0.. 0 5 0	Aug. 1859	
4000 Par Consols (cop.), St. Blazey [S.E.]	1 2 6..	11½	33 15 0..	0 10 0	July, 1859	
2000 Phoenix (copper, tin), Linkinhorne	100 0 0..	420	319 10 0..	25 0 0	May, 1859	
1772 Polberro (tin, St. Agnes)	5..	5	19 6..	0 12 6..	April, 1859	
1120 Providence (tin), Uley Leland [S.E.]	10 6 7..	50	47 2 3..	2 0 0	Aug. 1859	
2500 Rhowyndol and Bacheddon (lead)	11 5 0..	12	10 10..	10 10 0	Oct. 1859	
1024 Rosewarne and Herland United	7 10 0..	12	10 10..	10 10 0	Oct. 1859	
14000 Ruanbar Colliery Company, Limited	0 7 0..	35	0 1 10½ 0..	1 0 1 0	Aug. 1859	
512 South Canadian (cop.), St. Cleer [S.E.]	5 0 0..	242½	245 250	226 0.. 0 5 0	Sept. 1859	
512 South Tolgus (cop.), Redruth, Cornwall	8 0 0..	70	89 10 0..	2 0 0	Sept. 1859	
498 South Welsh Frances, Illogan [S.E.]	18 18 9..	145	338 10 0..	3 10 0	Sept. 1859	
948 St. Ives Consols (tin), St. Ives	8 0 0..	38	468 10 0..	3 5 0	Aug. 1859	
9600 Tammar Con. (sil.-id.), Bernalstow [S.E.]	4 10 0..	36	4 10 0..	2 6 0	Oct. 1859	
6000 Tinctor (cop., tin), Pool, Illogan [S.E.]	10 0 0..	50	9 18 6..	0 5 0	Oct. 1859	
6000 Tolvadden (copper), Marazion	—..	45½	9 0 0..	0 8 0	Aug. 1859	
872 Trelyon Consols (tin), St. Ives	11 10 0..	22½	3 15 0..	1 0 0	Sept. 1859	
2000 Trumpet Consols (tin), near Helston	47 10 0..	35	29 10 0..	4 0 0	Aug. 1859	
400 United Mines (copper), Gwennap	40 0..	120	135 145	72 15 0.. 2 10 0	Aug. 1859	
512 Wendron Consols (tin), Wendron	23 7 8..	45	8 10 0..	2 0 0	Sept. 1859	
512 West Charlotte, Perranuthnoe	1 0 8..	13½	0 13 0..	0 1 6	Sept. 1859	
400 Wheal Clifford (cop.), Tavistock [S.E.]	—..	290	39 10 0..	6 10 0	Sept. 1859	
128 Wheal Friendship (copper), Devon	50 0 0..	75	235 10 0..	10 10 0	Feb., 1859	
512 Wheal Grylls (tin), Farrantor	0 4 0..	4	1 0 0..	0 7 6	July, 1859	
512 Wheal Jannas (silver-lead), Kew	3 10 0..	21	9 10 0..	1 10 0	Oct. 1859	
5000 Wheal Kitty (tin), St. Agnes	4 10 0..	34½	31 34 3½	0 12 6..	Sept. 1859	
1024 Wheal Kitty (tin), Uley Leland [S.E.]	1 7 2..	13	11½ 12½	7 0 0.. 0 10 0	June, 1859	
4800 Wheal Ludcott (lead), St. Ives	2 10 8..	33½	4 0 4..	0 4 0.. 0 4 0	Sept. 1859	
89 Wh. Margaret (tin), Uley Lel. [S.E.]	9 17 6..	55	57 5 2½	57 5 2½	Aug. 1859	
100 Wh. Mary (tin), Leland	36 2 6..	440	273 5 0..	15 0 0	June, 1859	
1024 Wh. Mary Ann (id.), Menheniot [S.E.]	8 0 0..	34	33 34	47 7 6..	0 7 6	Dec., 1859
80 Wh. Owles (St. Just, Cornwall)	76 0 0..	300	235 13 0..	5 0 0	Aug. 1859	
198 Wh. Seton (tin, copper), Camborne	107 0 0..	106	300 10 0..	3 0 0	Oct. 1859	
1040 Wh. Trelawny (sil.-id.), Liskeard [S.E.]	4 7 0..	28	38 15 0..	1 0 0	Nov. 1859	
5000 Wicklow (copper), Wicklow	5 0 0..	51½	32 7 0..	1 15 0	Mar. 1859	

MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Nom. Pr.	Business.	Dividends Per Share.	Last Paid.
1824 Balleswidden (tin), St. Just	11 5 0..	32	12 5 0..	0 5 0	—Jan. 1854	
1200 Brightside & Frogatt Grove, Derbystow	3 0 0..	34½	3 0 0..	0 3 0	—April, 1856	
100 Brynford Hall (lead), Flintshire	25 0 0..	45½	13 0 0..	0 5 0	—July, 1856	
2000 Bryant, Llanidloes, Montgomeryshire	4 2 6..	4½	0 2 8..	0 2 6	—July, 1856	
1170 Budnick Consols (tin), Perran	0 14 2..	2	0 15 0..	0 15 0	—May, 1857	
4076 Calstock Consols (copper)	5 0 0..	2½	0 2 6..	0 2 6	—Dec. 1857	
2048 Carnorth (tin), St. Just	4 15 0..	3	2 2 ½	0 15 0..	0 3 0	—June, 1857
2500 Cariorth (tin), St. Just	15 17 6..	13	16 1 6..	0 8 0	—Sept. 1857	
2000 Coliccombe (copper), Lamerton	5 0 0..	13	3 5 0..	0 8 0	—Sept. 1857	
256 Condurrow (cop.), Camborne	20 0 0..	80	85 0 0..	2 0 0	—June, 1857	
672 Ding Dong (tin), Galvau	37 14 0..	16	16 7 6..	1 10 0	—Mar. 1857	
1284 Drake Walls (tin, copper), Calstock	3 1 0 0..	15	11½ 15½	0 13 6..	—Sept. 1857	
2048 East Falmouth (copper), Gwennap	2 0 0..	35	189 10 0..	10 0 0	—Oct. 1859	
1024 East Wheal Margaret (tin, copper)	15 0 0..	35	29 10 0..	4 0 0	—Feb., 1859	
512 East Wheal Frances, Illogan [S.E.]	1 7 2..	13	53 10 0..	5 0 0	—Oct. 1859	